1. Study the 1:50,000 map extract of Nkhotakota and answer the questions that follow:

a. (i) Identify the human made feature at grid reference **411725**.

_____

_____

(2 marks)

(ii) Give the six figure reference for the borehole **BHY189** at the South-West corner of the map.

_____

_____

_____

(2 marks)

b. (i) Find direction of flow for River Kaombe east of **Easting 39**.

_____

_____

(2 marks)

(ii) Calculate the bearing of the borehole **BY186 (3775)** from borehole **BHY189(3472)**.

_____

_____

(2 marks)

c. (i) Calculate the area west of **Easting 40** on the map. Show your working.

(5 marks)

(ii) Measure the distance of the road **D91** from the junction in grid square **3973** to where it ends. Give your answer in kilometres.

_____

_____

(3 marks)

Continued/...

1. (Continued)

d. What type of drainage pattern is displayed by Kaombe River on the map?

_____

(2 marks)

e. (i) What is the **highest** altitude on the map?

_____

(2 marks)

(ii) Describe the general relief of Nkhotakota as shown on the map.

_____

_____

(2 marks)

f. (i) Mention any **two** occupations of the people found in the area shown on the map.

(1) _____

_____

(2) _____

(2 marks)

(ii) Give a reason for each answer in **f(i)**.

_____

_____

_____

(2 marks)

g. (i) Enlarge the area on the map (from **Northing 72** to **Northing 75** and from **Easting 34** to **Easting 36**) to twice its original size. Use the graph paper on **page 4** to answer this question. **(4 marks)**

(ii) On the enlarged area indicate the following:

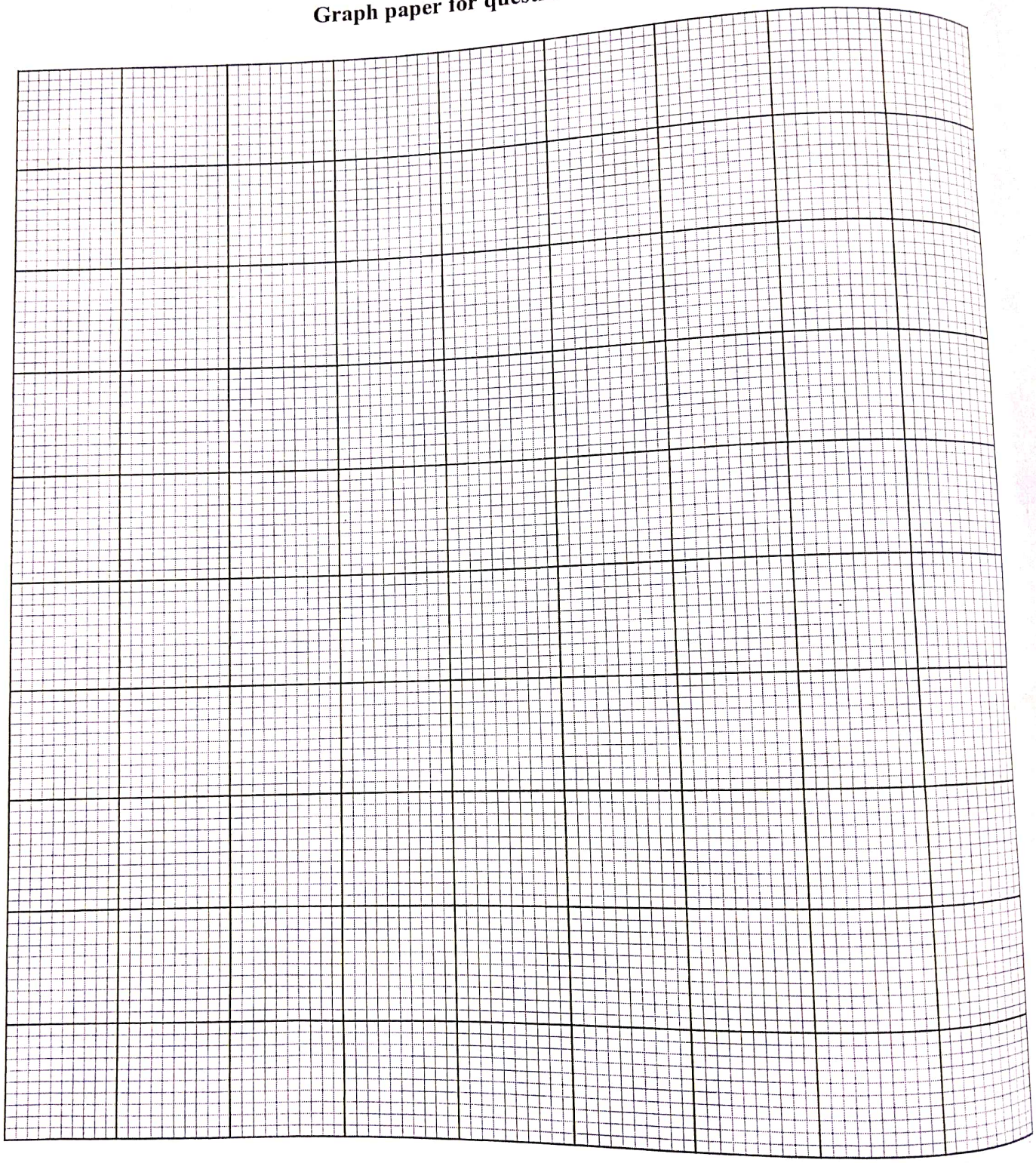
(1) new scale **(2 marks)**

(2) Chiputula village **(1 mark)**

(3) borehole **BHY189.** **(1 mark)**

Continued/...

Graph paper for questions 1g(i) and (ii)



2. a. (i) State any **two** results of the rotation of the earth.

_____

_____

_____

(2 marks)

(ii) Draw a stationary globe. On it locate and label the following in the **northern hemisphere**.

(1) pressure belts
(2) prevailing winds

(8 marks)

(iii) State any **one** characteristic of Fohn Winds.

_____

_____

(1 mark)

Continued/...

2015

2. **(Continued)**

b. (i) What is a "delta"?

_____

_____

(2 marks)

(ii) Explain any **one** necessary condition for the formation of a delta.

_____

_____

(2 marks)

c. (i) Why are some ocean currents warm while others are cold?

_____

_____

_____

(2 marks)

(ii) Explain any **one** beneficial effect of ocean currents on human activities.

_____

_____

(2 marks)

(iii) Describe how the mid-Atlantic Ridge was formed.

_____

_____

_____

(3 marks)

3. a. (i) Define the term "climate".

_____

_____

(2 marks)

(ii) State any **two** climatic regions of the world.

_____

_____

(2 marks)

Continued/...

2015

3.

23 ½°N

0°

23 ½°

3. (Continued)

b. **Figure 1** is the World Map showing some climatic regions. Study it and answer **questions (i), (ii)** and **(iii)**.

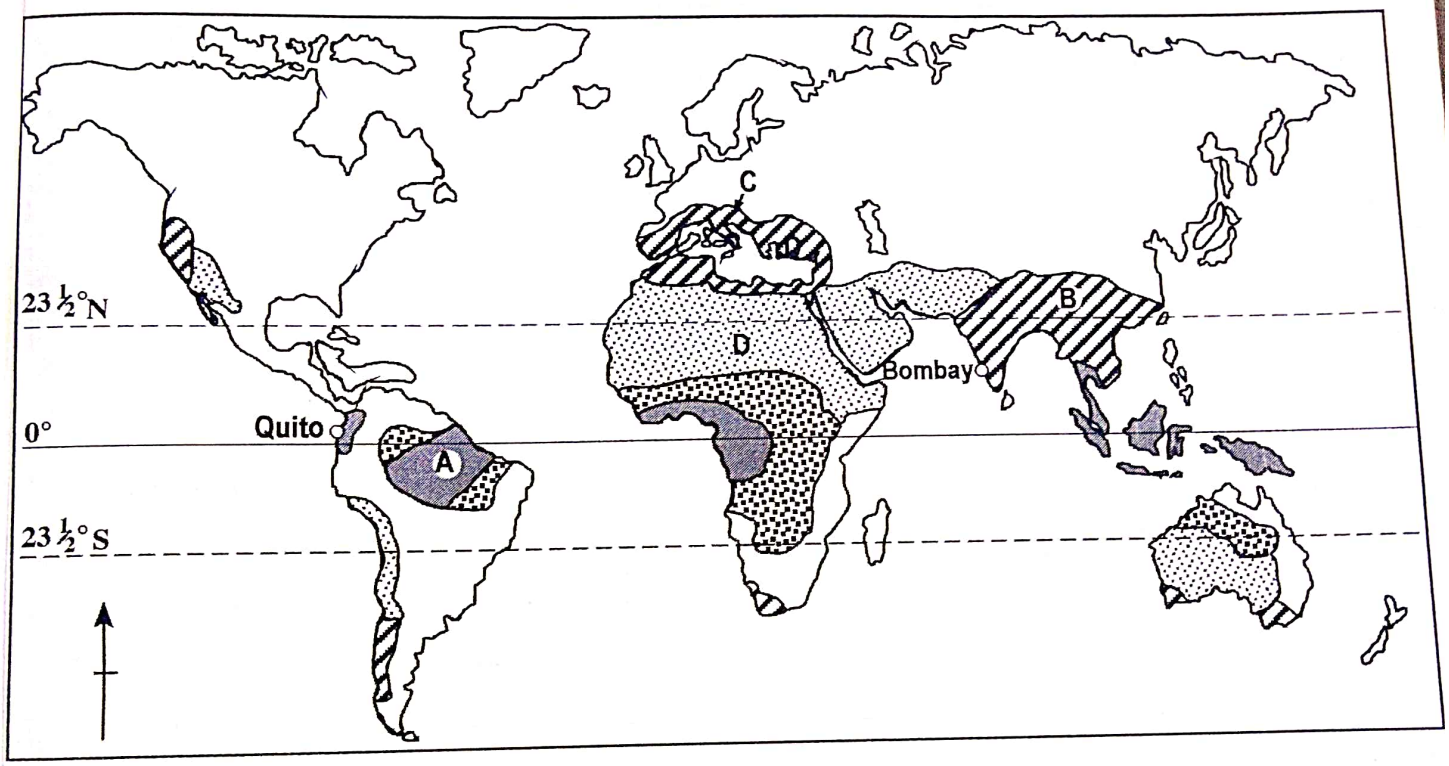


Figure 1
(Source: Certificate Physical and Human Geography)

(i) Identify climates labelled **A** and **B**.

A: _____

B: _____ **(2 marks)**

(ii) Which commercial crop is grown in the area marked **C**?

_____ **(1 mark)**

(iii) Describe climate **D** in terms of rainfall and temperature.

_____

_____

_____ **(4 marks**

Continued/...

3. **(Continued)**

c. With the aid of well labelled diagrams, explain the formation of residual mountains.

Diagrams

(4 marks)

Explanation:

(3 marks)

d. (i) How is pressure gradient shown on a synoptic map?

(2 marks)

(ii) Explain why steep pressure gradient is associated with strong winds.

(2 marks)

Continued/...

4. a. (i) What is "desertification"?

_____

_____

(2 marks)

(ii) Explain why desert plants have thick succulent stems.

_____

_____

_____

(2 marks)

(iii) Describe **one** way of controlling desertification.

_____

_____

_____

(2 marks)

b. (i) State **one** constructive influence of volcanoes on human activities.

_____

(1 mark)

(ii) Explain **one** difference between acidic lava and basic lava.

_____

_____

_____

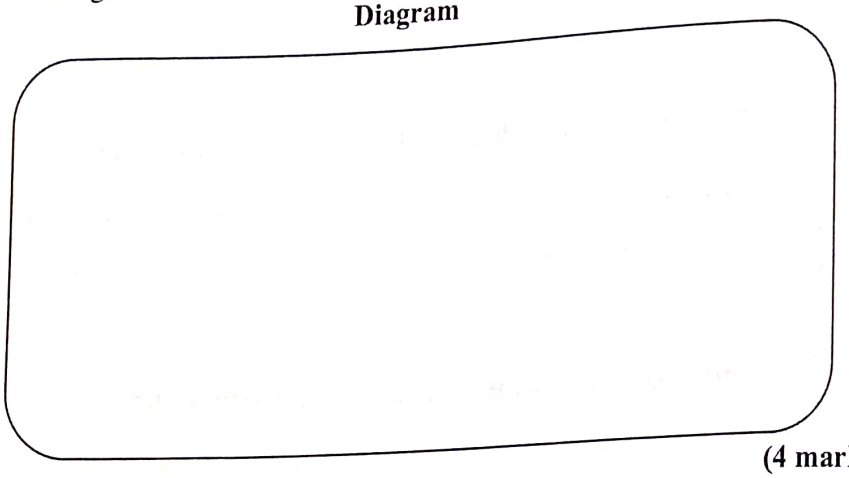
(2 marks)

Continued/…

4. b. **(Continued)**

(iii) Using a well labelled diagram, explain how an overthrust fold is formed.

Diagram



(4 marks)

Explanation:

_____

_____

_____

_____

_____

(3 marks)

c. (i) State any **two** ways for maintaining the hydrological cycle.

_____

_____

_____

(2 marks)

(ii) Explain any **two** reasons why it is important to maintain the hydrological cycle.

_____

_____

_____

_____

_____

(4 marks)

Continued/…

5. a. (i) State **one** cause of seasons.

_____

_____

(1 mark)

(ii) In what **two** ways could undisturbed climate in Malawi act as a conservation measure for wildlife?

_____

_____

_____

_____

(4 marks)

b. **Tables 1** and **2** show temperature and rainfall statistics for **Stations A** and **B**.

Table 1 : Station A

Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Temp °C	26	26	27	27	30	28	27	27	27	27	26	26
Rainfall (mm)	218	155	165	175	183	170	173	218	218	208	254	265

Table 2 : Station B

Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Temp °C	11	15	15	20	27.5	32.5	36	37	36	31	22.5	15
Rainfall (mm)	-	0.1	0.2	-	-	-	-	-	-	-	-	0.2

(i) Identify the type of climate for each of the two stations.

A: _____ **(1 mark)**

B: _____ **(1 mark)**

(ii) Identify **two** differences in terms of temperatures and rainfall of the two stations.

_____

_____

_____

(4 marks)

Continued/...

5. b. **(Continued)**

(iii) Explain **two** conditions which hinder development in areas with the type of climate shown in **Station A**.

_____

_____

_____

_____ **(4 marks)**

c. **Figure 2** shows the internal structure of the earth. Use it to answer **questions (i)** and **(ii)**.

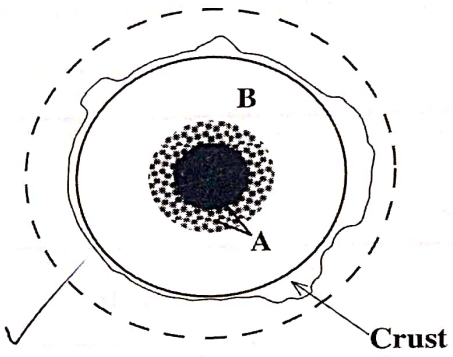


Figure 2

Adapted from Complete Physical Geography with mapwork elements by H Gareta (2010)

(i) Name the parts labelled **A** and **B**.

A: _____ **(1 mark)**

B: _____ **(1 mark)**

(ii) State any **three** characteristics of the part labelled **B**.

_____

_____

_____

(3 marks)

(iii) Why are sedimentary rocks stratified?

_____

_____

(2 marks)

END OF QUESTION PAPER

NB: This paper contains 12 printed pages.

1. Study the 1:50,000 map extract of Chirobwe area and answer the questions that follow. 1.

a. (i) Identify the human feature found on grid reference **711892**.

_____

(1 mark)

(ii) Give the six figure grid reference for the trigonometrical point **353/MWS**.

_____

(2 marks)

b. (i) Calculate the area east of Livulezi River on the map.

(5 marks)

(ii) In which direction is Makombe River flowing?

_____

(1 mark)

c. (i) Identify **three** land use activities north of **Northing 91** on the map.

_____

_____

_____

(3 marks)

(ii) What settlement pattern is shown by Muuso 2 Village between **Easting 71** and **72** and **Northing 89** and **90**?

_____

(2 marks)

d. (i) State whether or not Chinkhamwazi School in grid reference **6585** and Kampanje School in grid reference **7085** are intervisible.

_____

(1 mark)

Continued/...

1. d. **(Continued)**

(ii) Give a reason for your answer in **d. (i).**

_____

_____

_____

(2 marks)

e. (i) Find the contour interval of the map.

_____

(1 mark)

(ii) What evidence is there on the map to show that conservation of natural resources is being done?

_____

_____

(2 marks)

f. (i) What major environmental problem is likely to be experienced in the area represented on the map between **Eastings 68** and **72**?

_____

(1 mark)

(ii) Give a reason for your answer in **f.(i).**

_____

_____

(2 marks)

g. (i) Convert the scale of the map to a statement scale.

_____

_____

(2 marks)

(ii) Calculate the bearing of the road junction in grid square **6892** from trigonometrical point **353/MWS** in grid square **7389.**

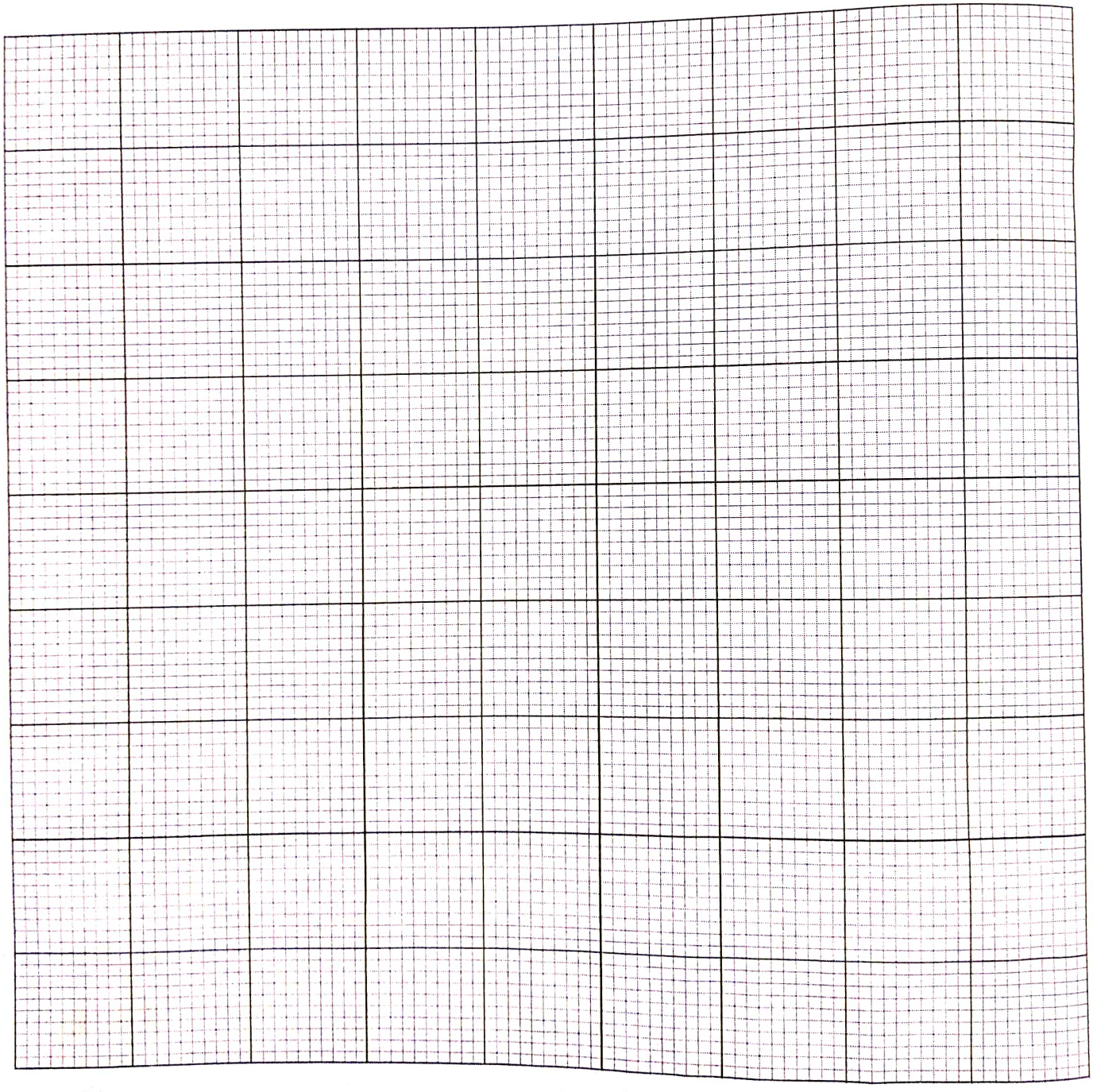
(2 marks)

h. (i) Reduce the map to half its original size. Use the graph paper on **page 4** to answer this question. **(4 marks)**

(ii) On the reduced map, show Livulezi River, Bangwe Forest Reserve and Livulezi Estate. **(3 marks)**

Continued/...

Graph paper for questions 1h (i) and (ii)



Continued/…

2. a. **Figure 1** is the world map showing shields and volcanic features. Use it to answer the question that follow.

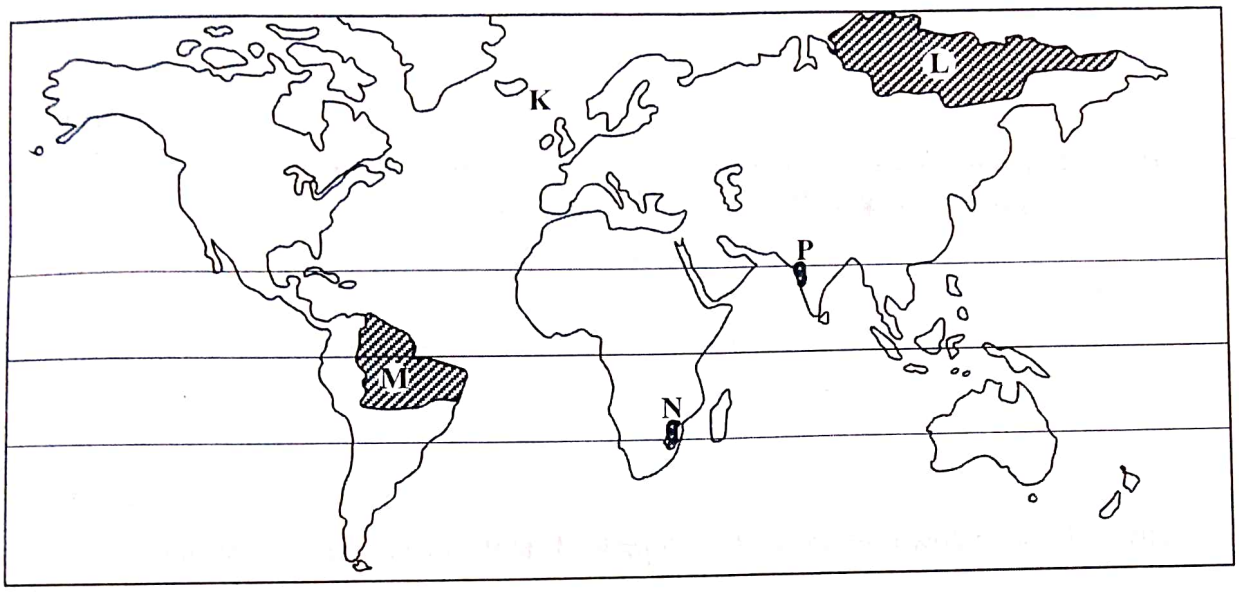


Figure 1

Reference: R B Burnett General Geography in Diagrams

(i) 1. Name the lava plateaus marked **N** and **P**.

N: _____ **(1 mark)**

P: _____ **(1 mark)**

2. Identify the world shields marked **L** and **M.**

L: _____ **(1 mark)**

M: _____ **(1 mark)**

(ii) Explain how the volcanic island labelled **K** was formed.

_____

_____

_____

_____

(4 marks)

Continued/…

2. a. (Continued)

(iii) Why are shields the most stable parts of the world?

_____

_____

(2 marks)

b. (i) Explain any **two** reasons why volcano-prone areas are densely populated despite the dangers they pose to human beings.

_____

_____

_____

_____

(4 marks)

(ii) Explain how each of the following leads to the occurrence of volcanoes:

1. earthquakes

_____

_____

_____

(3 marks)

2. thickness of the oceanic crust

_____

_____

_____

(3 marks)

c. State any **two** results of plate tectonics.

_____

_____

(2 marks

3. a. (i) Name **two** types of ocean currents.

_____

_____

(2 marl

Continue

3. a. **(Continued)**

(ii) Apart from the Labrador, give any **two** examples of ocean currents that are found in the Northern hemisphere.

_____

_____

(2 marks)

(iii) Explain **one** negative effect of the Labrador current on shipping along the north eastern part of North America.

_____

_____

_____

(2 marks)

b. Explain how each of the following factors affect the direction of ocean currents:

(i) shape of continents

_____

_____

(2 marks)

(ii) wind direction

_____

_____

(2 marks)

c. **Figure 2** below shows the major ocean currents of South America. Use it to answer the questions that follow.

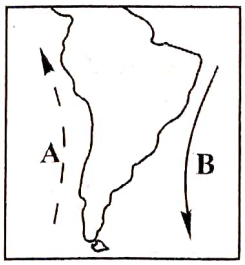


Figure 2
Source: F R Phiri, Senior Certificate Physical and Human Geography

Continued/...

3. c. **(Continued)**

(i) Name the ocean currents labelled **A** and **B**.

A: _____ **(1 mark)**

B: _____ **(1 mark)**

(ii) Explain any **two** effects of ocean current **A** on the adjacent landmasses.

_____

_____

_____

_____

(4 marks)

d. **Figure 3** is a diagram showing the hydrological cycle. Use it to answer the questions that follow.

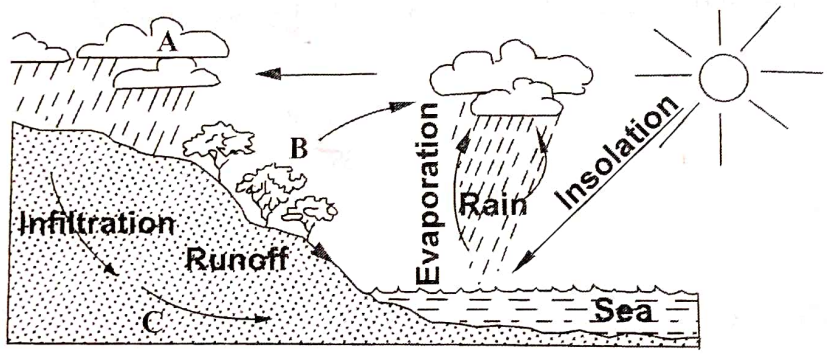


Figure 3

Source: F R Phiri, Senior Certificate Physical and Human Geography

(i) Name the features labelled **A** and **C**.

A: _____ **(1 mark)**

C: _____ **(1 mark)**

(ii) How important is feature **B** to the hydrological cycle? Give any **two** points.

_____

_____

_____

_____

(4 marks)

Continued/...

a. **Figure 4** is the world map showing location of some tropical cyclones. Use it to answer questions **a.(i)** and **(ii)**.

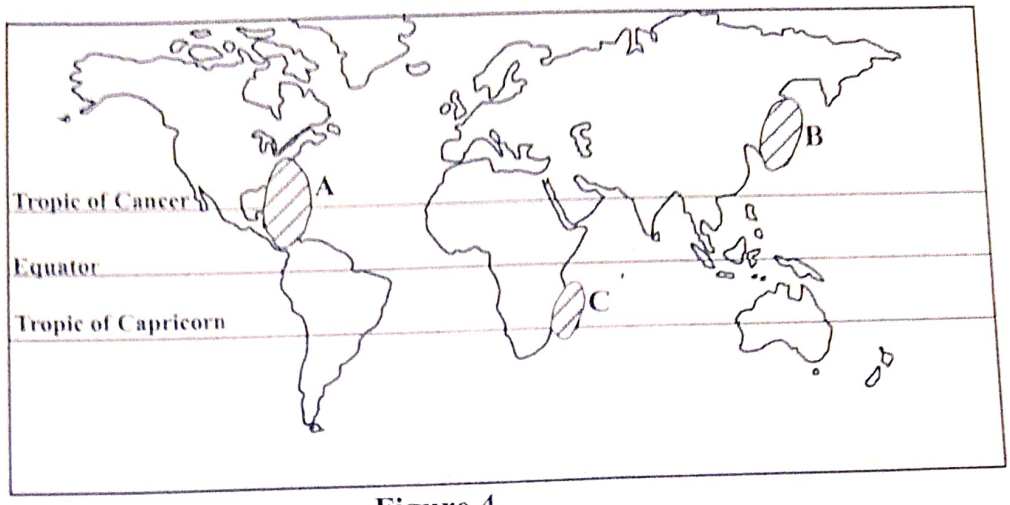


Figure 4

(i) Name the tropical cyclones marked **A** and **B**.

A: _____ **(1 mark)**

B: _____ **(1 mark)**

(ii) Explain any **one** effect of tropical cyclone **C** on the Mozambican coastal areas.

_____

_____

(2 marks)

(iii) Describe **two** characteristics of a tropical cyclone.

_____

_____

_____

_____

(4 marks)

b. Describe **two** conditions necessary for the development of a tropical cyclone.

_____

_____

_____

_____

(4 marks)

Continued/…

4. **(Continued)**

c. (i) What is the difference between a cyclone and an anticyclone in terms of their structure?

_____

_____

(2 marks)

(ii) Name **two** types of cyclones?

_____

_____

(2 marks)

d. With the aid of a diagram, show the patterns of prevailing winds on a rotating globe.

(6 marks)

5. a. Describe any **two** human activities that endanger the environment.

(i) _____

_____

(ii) _____

_____

(4 marks)

Continued/…

5. (Continued)

b. State any **two** effects of desertification on the environment.

(i) _____

_____

(ii) _____

_____

(4 marks)

c. Explain any **two** measures of controlling desertification.

_____

_____

_____

_____

(4 marks)

d. Describe any **two** ways of controlling air pollution.

(i) _____

_____

(ii) _____

_____

(4 marks)

Continued/...

5. **(Continued)**

e. (i) Give any **one** threat to wetlands in Malawi.

_____

(1 mark)

(ii) Explain any **two** ways of managing wetlands.

1. _____

_____

2. _____

_____

(4 marks)

f. Give any **one** reason why wild life is important.

_____

_____

(1 mark)

END OF QUESTION PAPER

NB: This paper contains 12 printed pages.

1. Study the **1:50,000** map extract of **Mulanje** sheet number **1535 D3** and answer the questions that follow.

a. (i) What is the highest altitude shown on the map north of **northing 48**?

_____

(1 mark)

(ii) State any **two** methods of representing relief that have been used on this map.

_____

_____

(2 marks)

(iii) What is the contour interval on the map?

_____

(1 mark)

b. Give a six-figure grid reference for each of the following:

(i) **BH126**.

_____

(2 marks)

(ii) Trigonometrical station 130/**NYS**.

_____

(2 marks)

c. (i) What is the compass direction of KokoloVillage in grid square **7148** from Nagame Village in grid square **7751**.

_____

(2 marks)

(ii) Measure the distance of **S147** road. Give your answer to the nearest kilometre.

_____

(2 marks)

d. (i) Convert the scale of the map to a statement scale.

_____

(2 marks)

Continued/...

1. d. **(Continued)**

(ii) Calculate the total area for Mulanje mountain forest reserve to the nearest km. Show all your working.

(6 marks)

e. (i) Identify the riverine feature in grid reference **707488**.

_____

(1 mark)

(ii) State any **two** drainage patterns shown on this map.

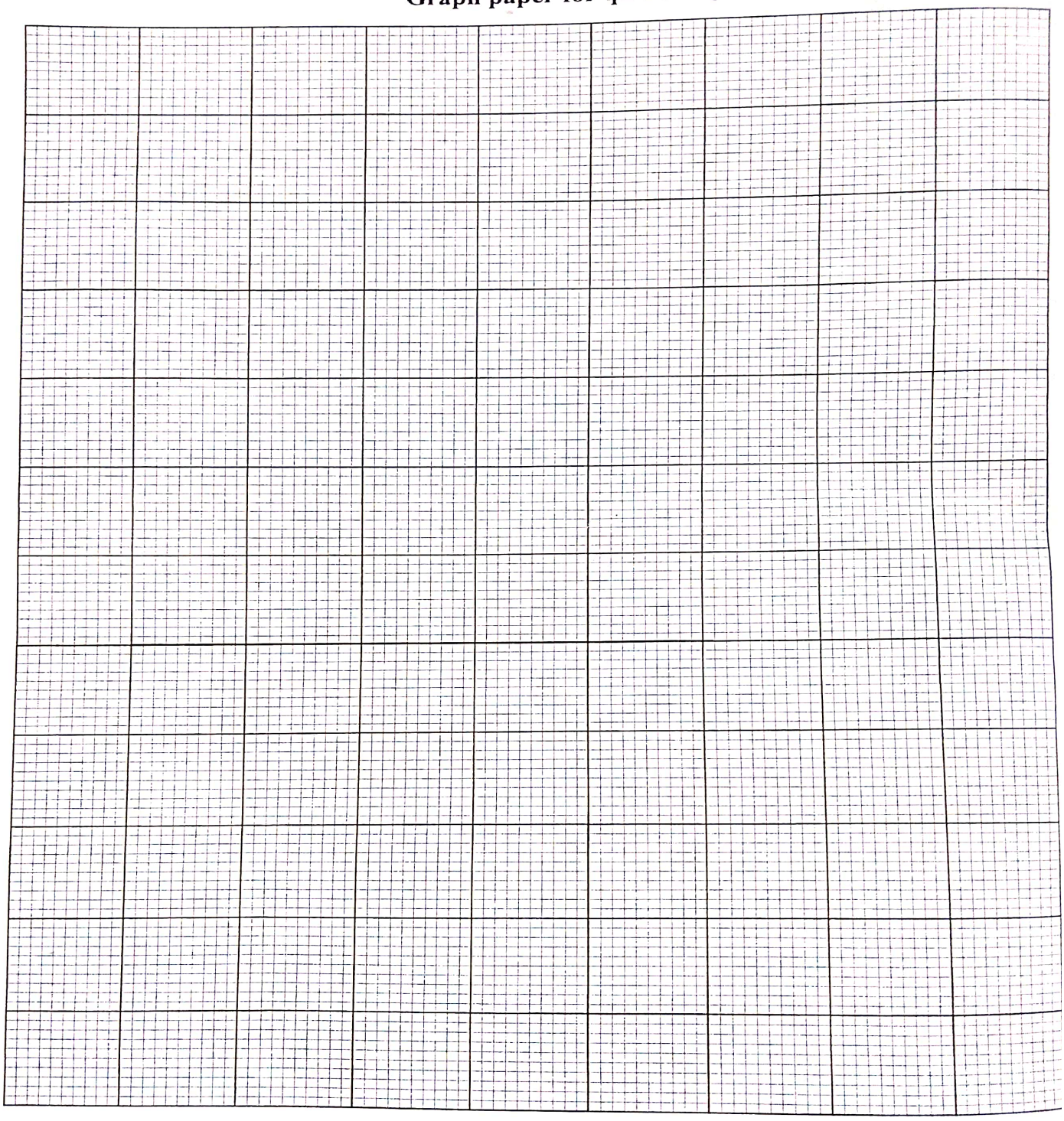
_____

_____

(1 mark)

f. Draw a cross-section of the area along **northing 48** from **easting 70** to **easting 78** on the graph paper provided on **page 4**. Use a vertical scale of 1 cm to 50 m. **(12 marks)**

Graph paper for question g.



Continue

2. a. (i) Mention any **two** processes in the hydrological cycle that increases humidity in the air.

_____

_____

(2 marks)

(ii) Why is vegetation important in the hydrological cycle? Give any **one** reason.

_____

_____

(2 marks)

(iii) Explain any **two** ways in which the hydrological cycle is important to humans.

_____

_____

_____

_____

(4 marks)

b. **Figure 1** is a diagram showing drainage pattern. Use it to answer questions that follow:

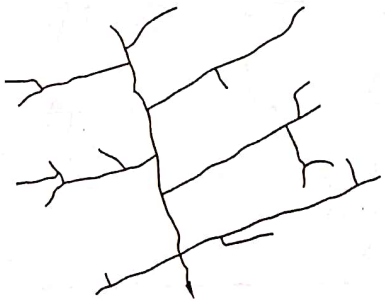


Figure 1

Source: R B Bunnett (Physical Geography in Diagrams for Africa Page 81)

(i) Identify the type of drainage pattern.

_____

(1 mark)

Continued/...

2. b. **(Continued)**

(ii) On which landform is the drainage pattern likely to develop? **(1 mark)**

_____

(iii) Describe **two** characteristics of the drainage pattern.

_____

_____

_____

_____ **(4 marks)**

c. **Figure 2** is a map of the world showing ocean currents. Use it to question **c (i), (ii)** and **(iii)**.

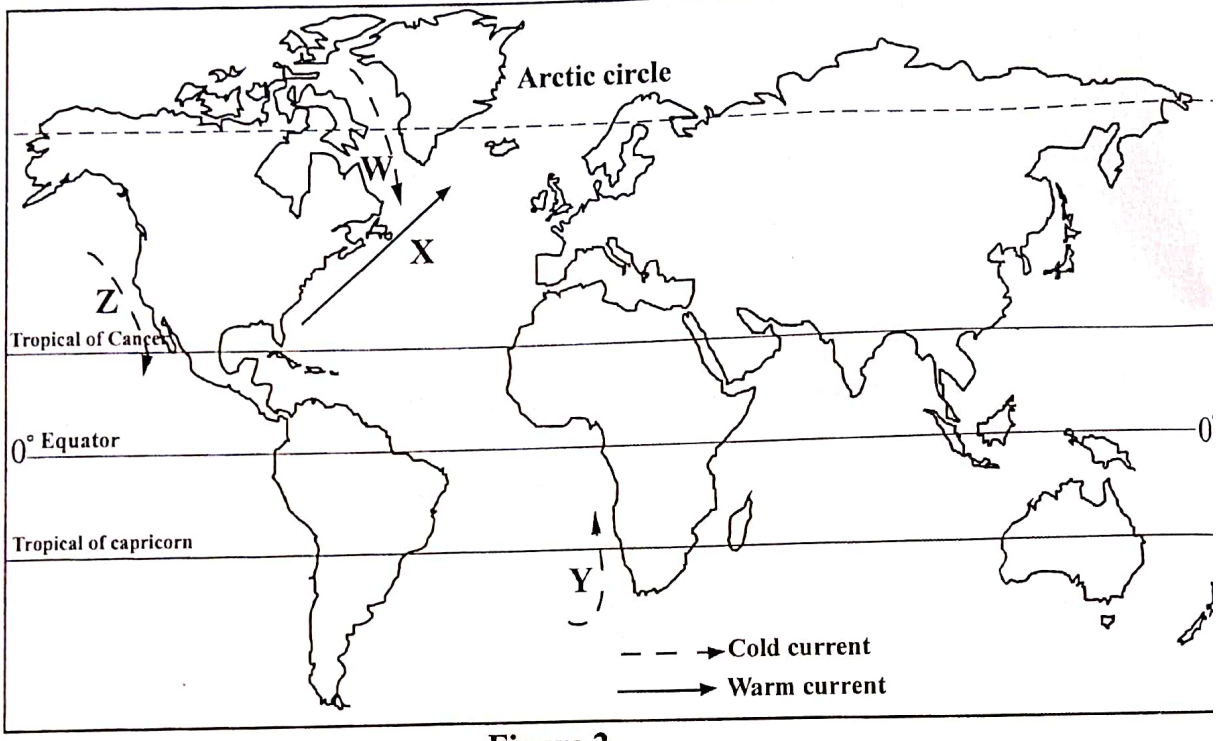


Figure 2

(i) Name the ocean currents labelled **Y** and **Z**.

Y: _____ **(1 mark)**

Z: _____ **(1 mark)**

(ii) Explain **two** effects of the meeting of current **W** and **X**.

_____

_____

_____

_____ **(4 marks)**

Continued/…

2. c. **(Continued)**

(iii) How does ocean current **Z** affect the adjacent land mass?

_____

_____

(2 marks)

3. a. (i) Draw a sketch map of Southern Malawi and on it locate any **two** wetlands.

(3 marks)

(ii) In what ways are wetlands important to the environment? Describe any **two**.

_____

_____

_____

_____

_____

(4 marks)

(iii) Explain any **two** effects of draining wetlands.

_____

_____

_____

_____

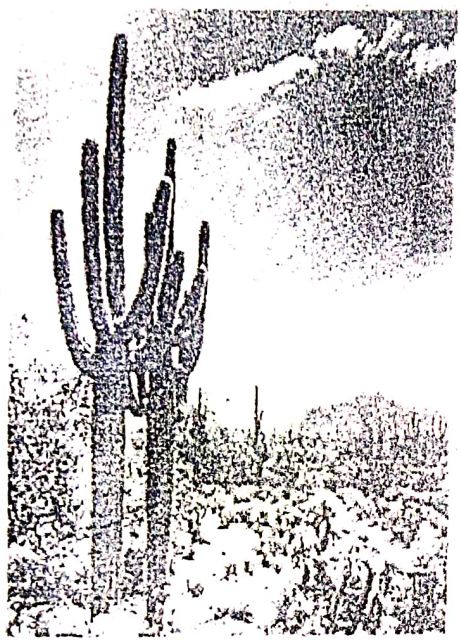
_____

(4 marks)

Continued/...

3. **(Continued)**

b. **Figure 3** shows photographs of two types of vegetation. Use it to answer questions that follow:



A

B

Figure 3

Source: R B Bunnett 1976 pages 167 and 168

(i) Identify the climates associated with vegetation types **A** and **B**.

A: _____

B: _____ **(2 marks**

(ii) Mention any **two** countries that have the vegetation type **A**.

_____

_____ **(2 marks**

(iii) Mention any **one** species of trees that is commonly found in forest with the vegetation type labelled **B**.

_____ **(1 mark)**

Continued/..

3. b. **(Continued)**

(iv) State **two** factors that promote differences between the two vegetation.

_____

_____

(2 marks)

(v) Explain any **two** differences between the two vegetation types.

_____

_____

_____

_____

(4 marks)

4. a. **Figure 4** is the world map showing climate regions. Use it to answer questions that follow:

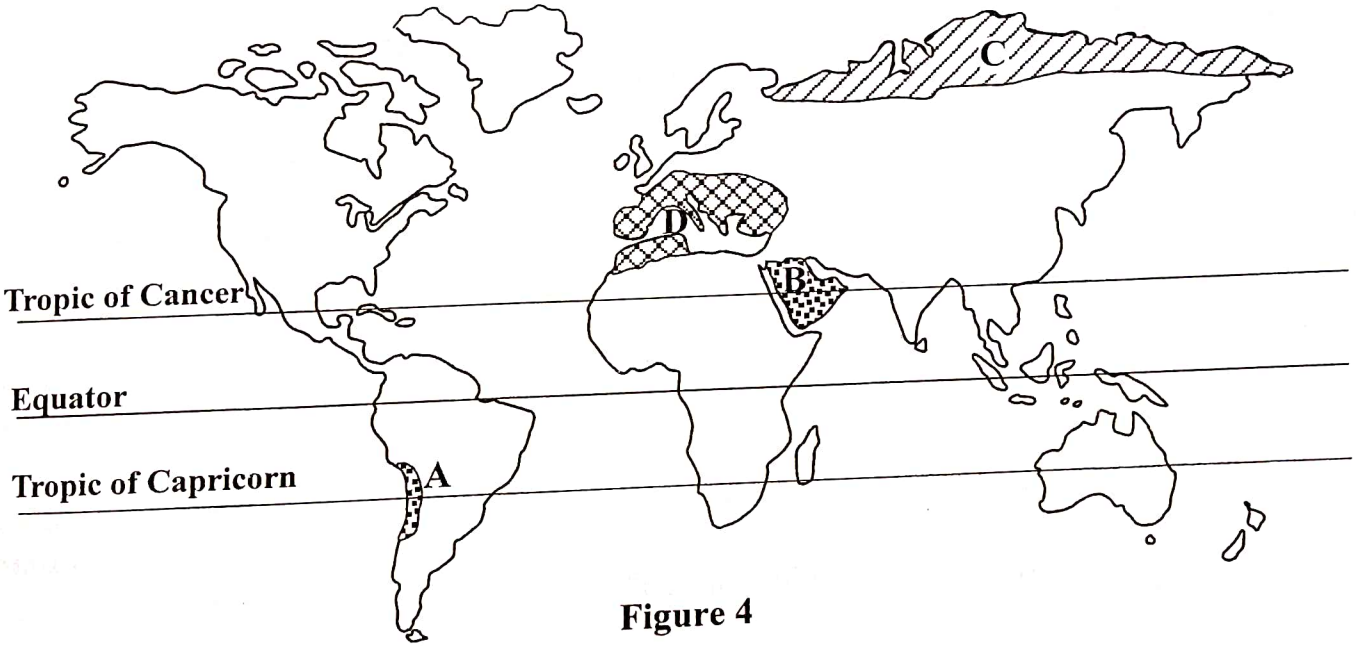


Figure 4

(i) Identify the deserts marked **A** and **B**.

A: _____ **(1 mark)**

B: _____ **(1 mark)**

Continued/…

2018

4. a. **(Continued)**

(ii) Mention any **one** type of agriculture that is practiced in desert marked **B**.

_____ **(1 mark)**

b. Give **one** reason why agricultural development is retarded in the region marked **C**.

_____

_____ **(2 marks)**

c. (i) Identify the type of climate that is experienced in the region marked **D**.

_____ **(1 mark)**

(ii) Mention **one** country in the Northern hemisphere that experiences climate **D**.

_____ **(1 mark)**

(iii) In what **two** ways is the climate that is experienced in the region marked **D** economically important?

_____

_____

_____

_____

_____

_____ **(4 marks**

d. (i) How are acidic rains formed?

_____

_____ **(2 marks**

(ii) Mention any **two** effects of acidic rainfall.

_____

_____ **(2 marks**

Continued/

4. (Continued)

e. Describe any **two** human activities that endanger the water in the environment.

_____

_____

_____

_____

(4 marks)

f Explain how emission of gasses in the atmosphere causes climate change.

_____

_____

_____

(3 marks)

5. a. (i) Give any **two** examples of plutonic igneous rocks.

_____

_____

(2 marks)

(ii) Why do plutonic igneous rocks have large crystals?

_____

_____

(2 marks)

b. (i) Describe the following terms in relation to earthquakes:

1. focus

_____

_____

(2 marks)

2. epicentre

_____

_____

(2 marks)

Continued/…

5. b. (Continued)

(ii) State any **two** effects of earthquakes.

_____

_____

(2 marks)

c. (i) Use a well labelled diagram to describe how an overfold is formed.

_____

_____

_____

(5 marks)

(i) State any **two** ways in which young and old fold mountains are economically important.

_____

_____

(2 marks)

d. (i) Explain briefly how a volcano is formed during crustal compression.

_____

_____

_____

(3 marks)

(ii) Why do earthquakes and volcanic eruptions occur commonly in the same regions? Explain **one** reason.

_____

_____

_____

(2 marks)

END OF QUESTION PAPER

NB: This paper contains 12 printed pages.

20

1.

SECTION A (85 marks)

Answer **all** the questions

Study the **1:50,000** map extract of Nsanje and answer the questions that follow:

1. a. (i) Give the six figure grid reference of **BH RB 126.**

_____

(2 marks)

(ii) Identify the human feature found at grid reference **366135** .

_____

(1 mark)

b. (i) State the drainage pattern which Nyachirenda river is displaying on the map.

_____

(1 mark)

(ii) Identify the riverine feature which displayed by Shire River between **northing 11** and **northing 14.**

_____

(2 marks)

c. Measure the distance of the **M1** road from **northing 11** to the boundary with Mozambique. Present your answer to the nearest kilometre.

_____

_____

(3 marks)

d. (i) Find the bearing of **BHRB 287** from **BH RB 126.**

_____

_____

(3 marks)

(ii) State the direction of flow of Nyachipere river between **easting 41** and **easting 44.**

_____

(1 mark)

Continued/...

Section A (85 MARKS)

Answer all questions.

1. Study the **1:50,000** map extract of Nankumba sheet **1434/B4/D4** and answer the questions that follow.

a. (i) Give the **six** figure grid reference for the historic site.

_____

(2 marks)

(ii) Identify the man made feature that is found at grid reference **064391.**

_____

(1 mark)

b. (i) Measure the length of **S128** road on the map. Give the answer to the nearest kilometre.

_____

(3 marks)

(ii) Identify **two** drainage patterns north of **Northing 41.**

_____

_____

(2 marks)

c. Find the bearing of the Rock from the trigonometric pillar **350/Mws**

_____

(3 marks)

d. (i) Mention any **two** ways in which relief is represented on the map

_____

_____

(2 marks)

Continued/…

1 d. (Continued)

(ii) Describe the topography of the area north west of Nankumba.

_____

_____

_____

(2 marks)

e Calculate the area covered by Lake Malawi west of **easting 02** between **easting 06** and **09**. Give your answer to the nearest kilometer. Show all your working. **(6 marks)**

f. (i) Mention any **two** land uses to the west of easting **06**.

_____

_____

(2 marks)

(ii) State any **two** coastal landforms shown on the map.

_____

_____

(2 marks)

Continued/...

1 (Continued)

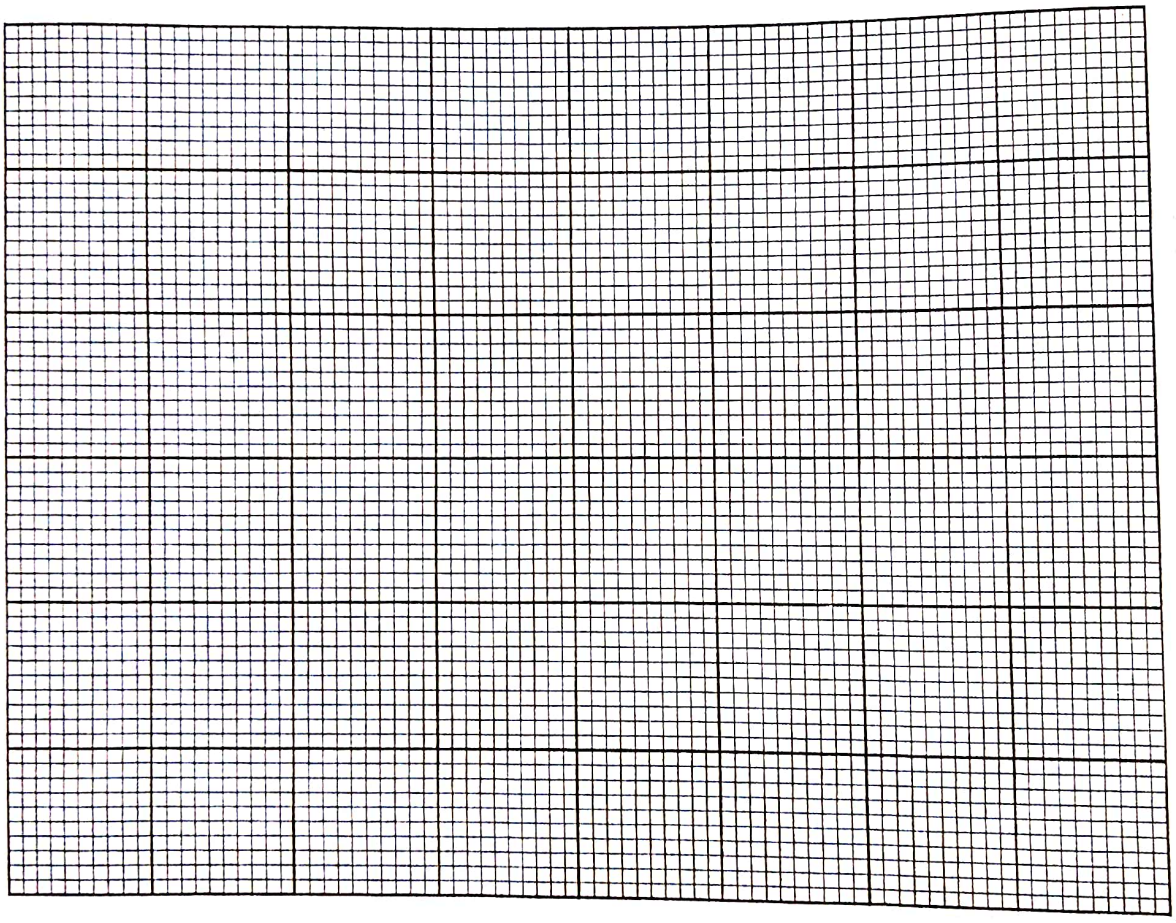
g. Reduce the map of Nankumba to twice its original size between **eastings 01** to **07** and northing **38** to **northing 45** on the graph paper provided below. **(4 marks)**

On the reduced map show the following:

(i) New scale **(2 marks)**

(ii) S128 road **(2 marks)**

(iii) Air field **(2 marks)**



Continued/...

2. a. **Figure 1** is a diagram showing the internal structure of the earth . Use it to answer questions **(i)** and **(ii).**

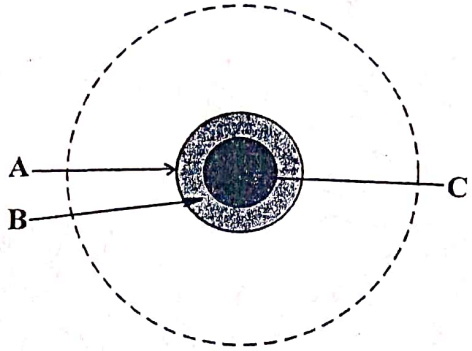


Figure1

(i) Name the parts labelled **A** and **C**

A : _____ **(1 mark)**

C: _____ **(1 mark)**

(ii) State any **two** characteristics of the part labelled **B**.

_____

_____

(2 marks)

b. (i) Name any **two** continents that were part of Gondwanaland during early stages of continental drift.

_____

_____

(2 marks)

(ii) Explain any **two** weaknesses of the continental drift theory.

_____

_____

_____

_____

(4 marks)

Continued/…

2 (Continued)

c. **Figure 2** is a map of the world showing the tectonic plates. Use it to answer questions (i), (ii) and (iii).

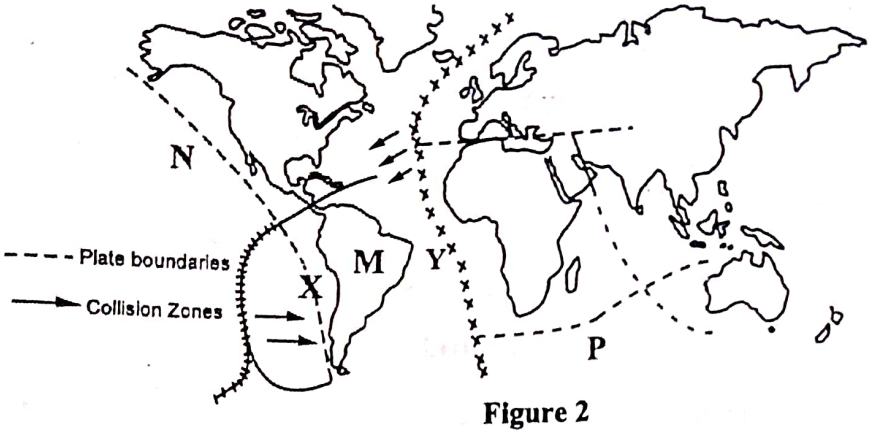


Figure 2

(i) Name the plates labelled **N** and **P**.

N: _____ **(1 mark)**

P: _____ **(1 mark)**

(ii) Mention any **two** features that can be developed along plate boundary **X**.

_____

_____

(2 marks)

(iii) Describe the process of the formation of ocean ridges along plate boundary **Y**.

_____

_____

_____

_____

(2 marks)

Continued/...

2 **(Continued)**

d. (i) With the aid of a well labelled diagram, describe a reverse fault.

_____

_____

_____

(4 marks)

(ii) Give any **two** examples of Block mountains in Africa.

_____

_____

(2 marks)

(iii) List any **three** characteristics of Block mountains.

_____

_____

_____

_____

(3 marks)

3. a. **Figure 3** is a photograph showing a type of pollution. Use it to answer questions **(i)**, **(ii)** and **(iii)**.

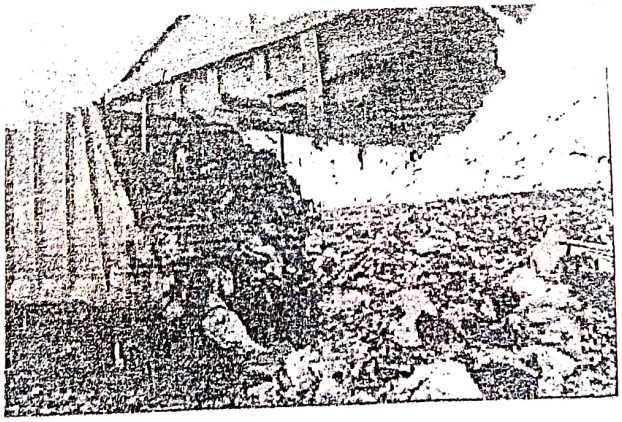


Figure 3

Continued/…

3. a **(Continued)**

(i) Mention the type of pollution.

_____

(1 mark)

(ii) Explain any **two** ways in which the pollution in the photograph is caused.

_____

_____

_____

_____

(4 marks)

(iii) Describe any **two** harmful effects of this type of pollution.

_____

_____

_____

_____

(4 marks)

b (i) What is the difference between "natural disasters" and "natural hazards"?

_____

_____

(2 marks)

(ii) Mention any **two** natural disasters which **commonly** occur in Malawi.

_____

_____

(2 marks)

c. (i) Explain any **two** causes of desertification in Malawi.

_____

_____

_____

_____

(4 marks)

Continued/...

3. c (Continued)

(ii) Mention any **two** measures for controlling desertification.

_____

_____

(2marks)

d. (i) Define the term "continental shelf".

_____

_____

(2 marks)

(ii) Explain any **two** ways in which the continental shelf is important.

_____

_____

_____

_____

(4 marks)

SECTION B (25 MARKS)

Answer only one question in this section.

4. a **Figure 4** is a diagram showing the layers of the atmosphere. Use it to answer questions **(i), (ii)** and **(iii)**.

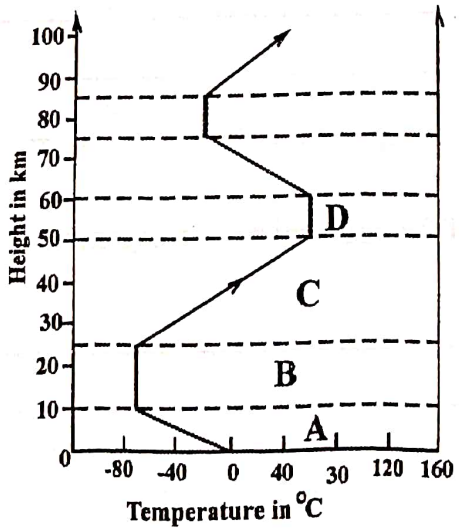


Figure 4

Continued/...

4. a. **(Continued)**

(i) Identify the layers labelled **B** and **D**.

B: _____ **(1 mark)**

D : _____ **(1 mark)**

(ii) State any **two** characteristic of the layer labelled **A.**

_____

_____

_____ **(2 marks)**

(iii) Explain the changes that occur in temperature within layer **C.**

_____

_____ **(2 marks)**

b. With aid of a diagram, describe a cold occluded front.

_____

_____

_____ **(5 marks)**

c. Explain the impact of the Intertropical Convergence Zone on the climate of Malawi.

_____

_____ **(2 marks)**

Continued/...

4. **(Continued)**

d. **Table 1** shows temperature and rainfall statistics of a climate station **Y**. Use it to answer questions that follow.

Table 1

Month	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Temp ^0C	25	25	25	25	25	24	23	25	25	25	25	25
Rainfall (mm)	130	140	190	190	80	20	10	50	110	170	220	210

(i) Identify the climatic region represented by the data in the table. **(1 mark)**

_____

(ii) Mention the hemisphere in which the climate represented by the data in the table is located. **(1 mark)**

_____

(iii) Mention any **two** countries in Africa that experience the climate represented by the data in the table. **(2 marks)**

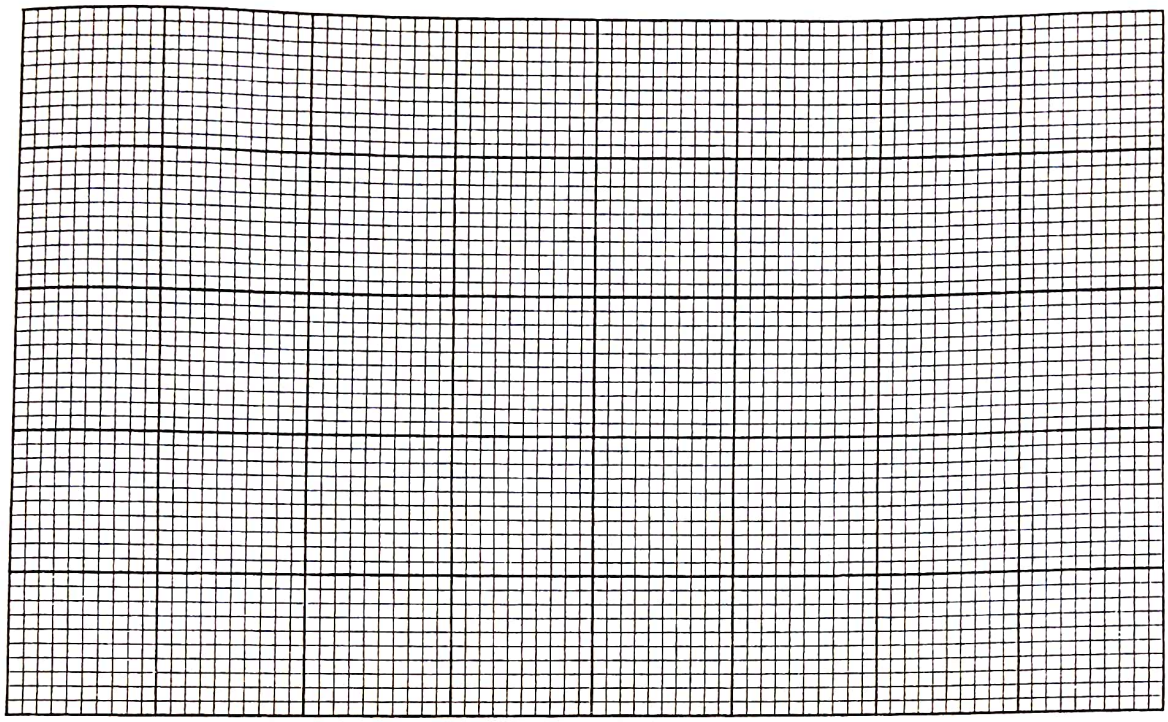
_____

_____

(iv) Using the data in the table, draw a bar graph showing rainfall distribution in the climate region on the graph paper provided **on page 12**. Use a scale of 1 cm to 20 mm on the vertical axis. **(8 marks)**

Continued/...

4. d. **(Continued)**



5. a. Explain any **two** ways in which the atmosphere sustains life on earth. **(4 marks)**

_____

_____

_____

_____

_____

_____

Continued/...

5. (Continued)

b. **Figure 5** is a graph showing temperature and rainfall patterns for climate station **X**.

Use it to answer questions b **(i)**, **(ii)**, **(iii)** and **(iv)**.

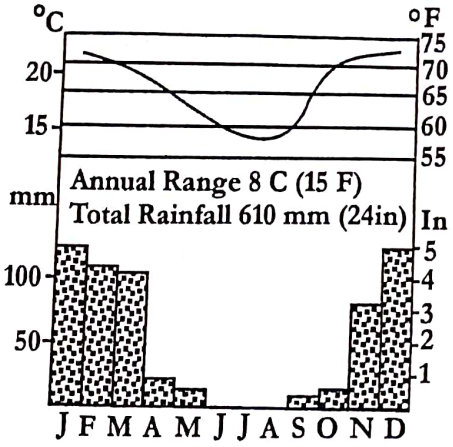


Figure 5

(i) Identify the climate region represented by the graph.

_____ **(1 mark)**

(ii) In which hemisphere is the station represented by the graph located?

_____ **(1 mark)**

(iii) Describe any **two** characteristics of the climate represented by the graph.

_____

_____

_____

_____

(4 marks)

(iv) Explain any **two** factors that hinder agricultural development in the climatic region represented by the graph.

_____

_____

_____

_____

(4 marks)

Continued/...

5. **(Continued)**

c. **Figure 6** is a map of southern Africa showing pressure readings. Use it to answer questions **(i) (ii)** and **(iii)**

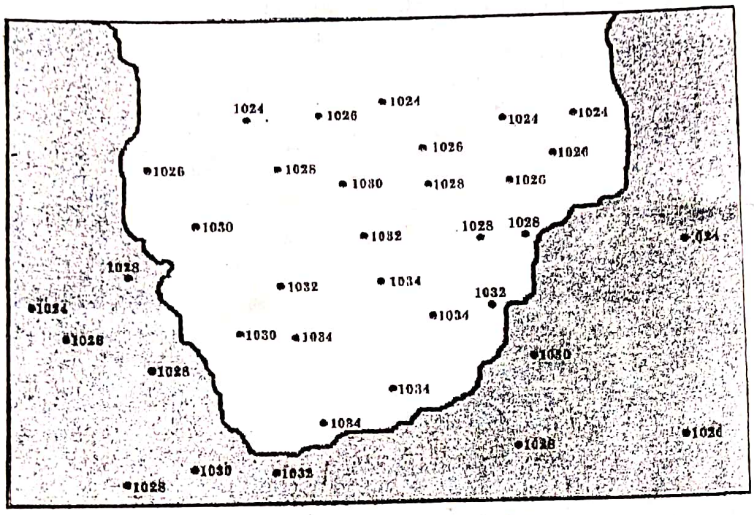


Figure 6

(i) Draw lines joining places with the same pressure readings on the map. **(3 marks)**

(ii) On the map insert **H** on the area with highest air pressure reading and **L** on the place with the lowest pressure reading. **(2 marks)**

(iii) Using an arrow show the direction of wind on the map . **(1 mark)**

d. State any **two** effects of rotation of the Earth.

_____

_____

(3 marks)

e. Account for the low pressure that the belt develops a long latitude 60^0 N/S of the equator.

_____

_____

_____

(2 marks)

END OF QUESTION PAPER

NB: This paper contains 14 printed pages.

SECTION A (85 marks)

Answer **all** the questions

Study the **1:50,000** map extract of Nsanje and answer the questions that follow:

1. a. (i) Give the six figure grid reference of **BH RB 126.**

_____

(2 marks)

(ii) Identify the human feature found at grid reference **366135** .

_____

(1 mark)

b. (i) State the drainage pattern which Nyachirenda river is displaying on the map.

_____

(1 mark)

(ii) Identify the riverine feature which displayed by Shire River between **northing 11** and **northing 14.**

_____

(2 marks)

c. Measure the distance of the **M1** road from **northing 11** to the boundary with Mozambique. Present your answer to the nearest kilometre.

_____

_____

(3 marks)

d. (i) Find the bearing of **BHRB 287** from **BH RB 126.**

_____

_____

(3 marks)

(ii) State the direction of flow of Nyachipere river between **easting 41** and **easting 44.**

_____

(1 mark)

Continued/...

1. (Continued)

e. (i) Give any **two** occupations of people living in area west of **easting 44.**

_____

_____

(2 marks)

(ii) Calculate the area shown on the map occurring to the east of **easting 44** to the nearest kilometre. Show all your working.

(6 marks)

f. (i) Account for absence of settlements between **easting 35** and **easting 37**. Give any **two** points.

_____

_____

_____

_____

(4 marks)

(ii) List any **two** environmental problems which people living between **easting 42** and **45** are likely to face.

_____

1. **(Continued)**

g. Calculate the gradient of the land along **northing 08** between **easting 34** and **easting 38.** (Use **15 m** to represent **50 ft**)

(8 marks)

2. (i) State any **two** characteristics of inner planets.

_____

_____

(2 marks)

(ii) Explain how each of the following proves that the earth is spherical:

(1) eclipse of the moon.

_____

_____

(2 marks)

(2) circumnavigation

_____

_____

(2 marks)

Continued/...

2. (Continued)

b. (i) Mention any **two** characteristics of the core.

_____

_____

(2 marks)

(ii) With the aid of a well labelled diagram describe the process through which crater lakes are formed.

_____

_____

_____

_____

(5 marks)

c. (i) State any **two** characteristics of igneous rocks.

_____

_____

(2 marks)

Continued/...

2. c. **(Continued)**

(ii) Describe any **two** pieces of evidence supporting the theory of continental drift.

_____

_____

_____

_____

(4 marks)

e. **Figure 1** is a map of the world showing plate boundaries. Use it to answer questions **(i), (ii),** and **(iii)**:

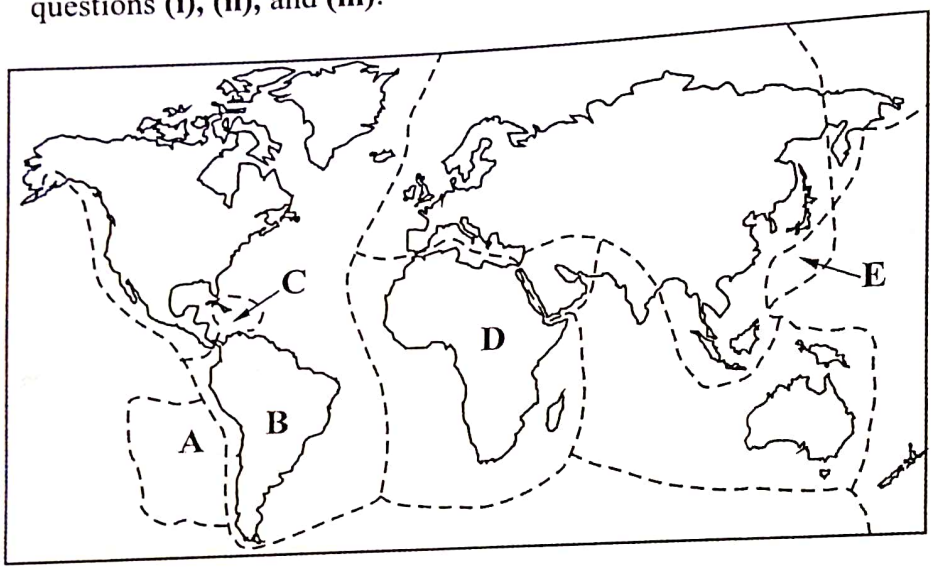


Figure 1

(i) Name plates **C** and **E.**

_____

_____

(2 marks)

(ii) State the type of plate labelled **A.**

_____

(1 mark)

2. e. **(Continued)**

(iii) On the map itself,

(1) show the direction of movement for plates **D** and **B** using arrows.

_____

_____

(2 marks)

(2) shade the region occupied by Andes mountains.

_____

(1 mark)

3. a. **Figure 2** is a diagram showing the relief of ocean basins. Use it to answer questions **(i), (ii)** and **(iii).**

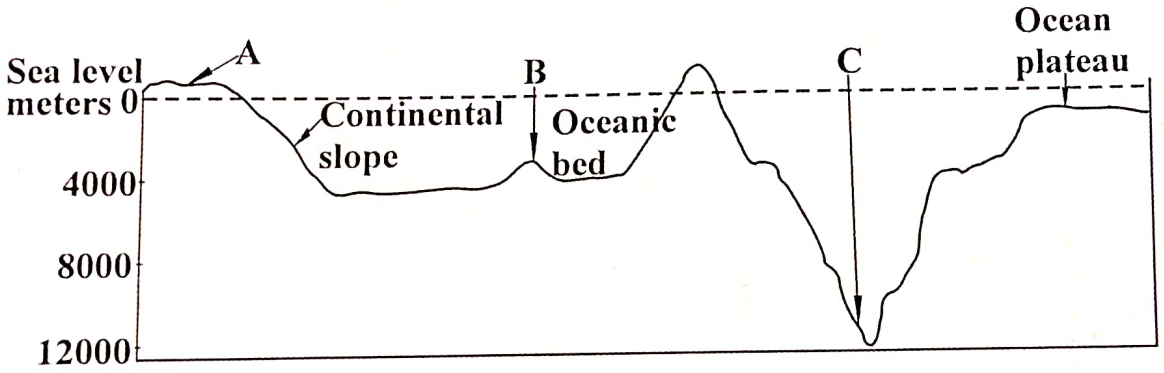


Figure 2

(i) Identify features labelled **B** and **C.**

_____

_____

(2 marks)

(ii) Describe how feature labelled **C** is formed.

_____

_____

_____

_____

(3 marks)

Continued/...

3. a. **(Continued)**

(iii) Outline any **two** ways in which feature labelled **A** is important.

_____

_____

(2 marks)

b. Explain how each of the following factors disturbs the hydrological cycle.

(i) global warming

_____

_____

(2 marks)

(ii) acid rainfall

_____

_____

(2 marks)

c. (i) Draw a sketch map of Southern Malawi and on it locate **three** wildlife conservation areas.

(4 marks)

Continued/...

3. c. **(Continued)**

(ii) Outline any **two** ways in which wildlife is important.

_____

_____

(2 marks)

d. (i) Explain how the burning of fossil fuels causes climate change.

_____

_____

_____

_____

(2 marks)

(ii) Describe any **two** benefits of climate change agreements.

_____

_____

_____

_____

(4 marks)

(iii) State any **two** challenges that are associated with climate change agreements.

_____

_____

_____

_____

(2 marks)

Continued/...

SECTION B (25 marks)

Answer **one** question only

4. a. **Figure 3** is a diagram showing the major air pressure belts on a stationary globe. Use it to answer questions **(i), (ii)** and **(iii)**:

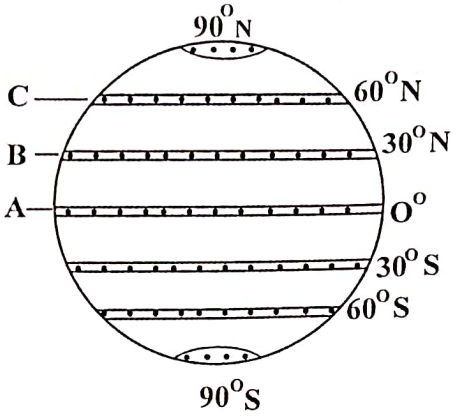


Figure 3

(i) Name the pressure belts marked **B** and **C.**

_____

_____

(2 marks)

(ii) Explain the causes of low pressure belt at **A.**

_____

_____

_____

_____

(3 marks)

(iii) On the figure, show the direction of the following winds using arrows:

(1) North East Trades **(1 mark)**

(2) South Westerlies **(1 mark)**

(3) North East Polar **(1 mark)**

Continued/...

4. **(Continued)**

b. Explain any **two** ways in which the atmosphere is important.

_____

_____

_____

_____

(4 marks)

c. Describe how the following factors cause high air pressure:

(i) altitude

_____

_____

(2 marks)

(ii) temperature

_____

_____

(2 marks)

e. **Table 1** shows climate data for station **X**. Use it to answer questions that follow:

Table 1

Month	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Temp °C	28	26	25	22	19	15	14	17	21	29	30	30
Rain mm	190	185	115	25	12	00	00	04	08	28	93	148

(i) Identify the climatic region represented by the table.

_____

(1 mark)

Continued/...

4. c. **(Continued)**

(ii) Calculate the annual temperature range for the climate station X.

_____

(2 marks)

(iii) Name any **two** countries in Southern Africa which experience the climate represented by the table .

_____

_____

(2 marks)

(iv) Explain any **two** challenges affecting economic activities in the areas experiencing the climate represented by the table.

_____

_____

_____

_____

(4 marks)

5. a. **Figure 4** is a diagram showing the development of local winds. Use it to answer questions **(i), (ii), (iii)** and **(iv).**

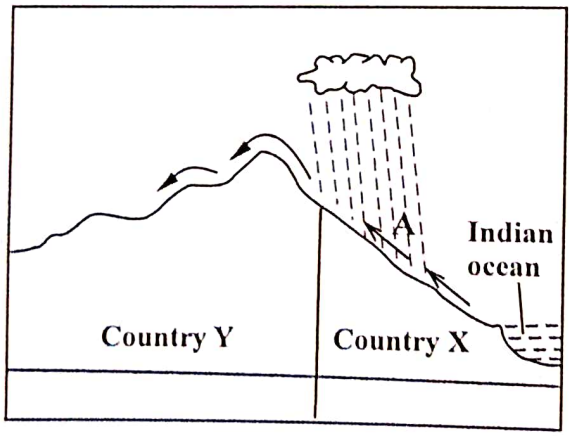


Figure 4

Continued/...

5. a. **(Continued)**

(i) Name the local wind shown in the diagram.

_____

_____

(1 mark)

(ii) Identify countries **X** and **Y**.

_____

_____

(2 marks)

(iii) Give any **three** characteristics of the local wind shown in the diagram.

_____

_____

_____

(3 marks)

(iv) Explain the effect of the wind to the affected land mass.

_____

_____

_____

(2 marks)

b. (i) Mention any **two** examples of Tropical cyclones.

_____

_____

(2 marks)

(ii) Describe the weather pattern associated with the arrival of an eye of a Tropical cyclone.

_____

_____

_____

_____

(3 marks)

Continued/...

5. **(Continued)**

c. **Figure 5** is a diagram showing vegetation associated with a distinct climate. Use it to answer questions that follow:

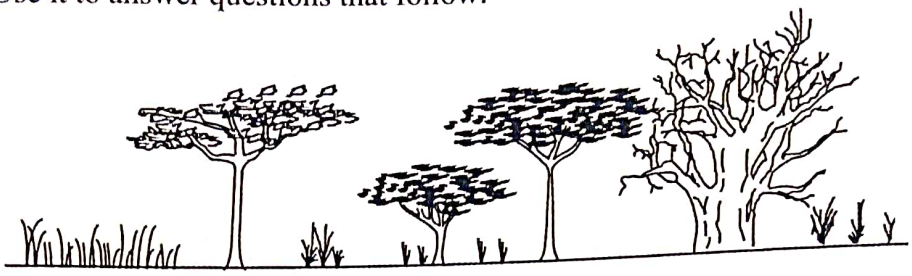


Figure 5

(i) Identify the vegetation shown in the diagram.

_____

(1 mark)

(iii) Mention the climate which is associated with the vegetation shown in the diagram.

_____

(1 mark)

(iv) Describe any **two** characteristics of the vegetation shown in the diagram.

_____

_____

_____

_____

(4 marks)

(v) Explain any **three** ways in which the vegetation shown in the diagram adapts to climatic conditions of the associated region.

_____

_____

_____

_____

_____

_____

(6 marks)

END OF QUESTION PAPER

NB: This paper contains 16 printed pages.

Section A (85 marks)

Answer **all** questions.

1. Study the **1:50,000** map extract of **Lilongwe** sheet **1433 BT** and use it to answer the following questions.

a. (i) Find the six figure grid reference for the trigonometric station **23 NYS**.

_____ **(2 marks)**

(ii) Identify the human feature found at six grid reference **654335**.

_____ **(1 mark)**

b. Name any **one** river which is displaying each of the following drainage patterns on the map.

(i) trellis: _____ **(1 mark)**

(ii) dendritic: _____ **(1 mark)**

c. (i) Mention the direction Kalonga **I** village from T/A Chiseka.

_____ **(1 mark)**

(ii) Calculate the bearing of trigonometric point **124 MWT** from trigonometric point **126 MWT**.

(3 marks)

d. (i) Outline any **two** land uses shown on the map.

_____

_____

(2 marks)

Continued/...

1. d. **(Continued)**

(ii) Name any **two** examples of nucleated settlements shown on the map.

_____

_____

(2 marks)

e. Calculate the actual area of Dzalanyama forest as shown on the map. Present your answer to the nearest kilometre.

(6 marks)

f. (i) Describe the general topography of the area captured on the map.

_____

_____

(2 marks)

(ii) With the evidence from the map explain any **two** human activities that are threatening the sustainability of Kamuzu Dam.

_____

_____

_____

_____

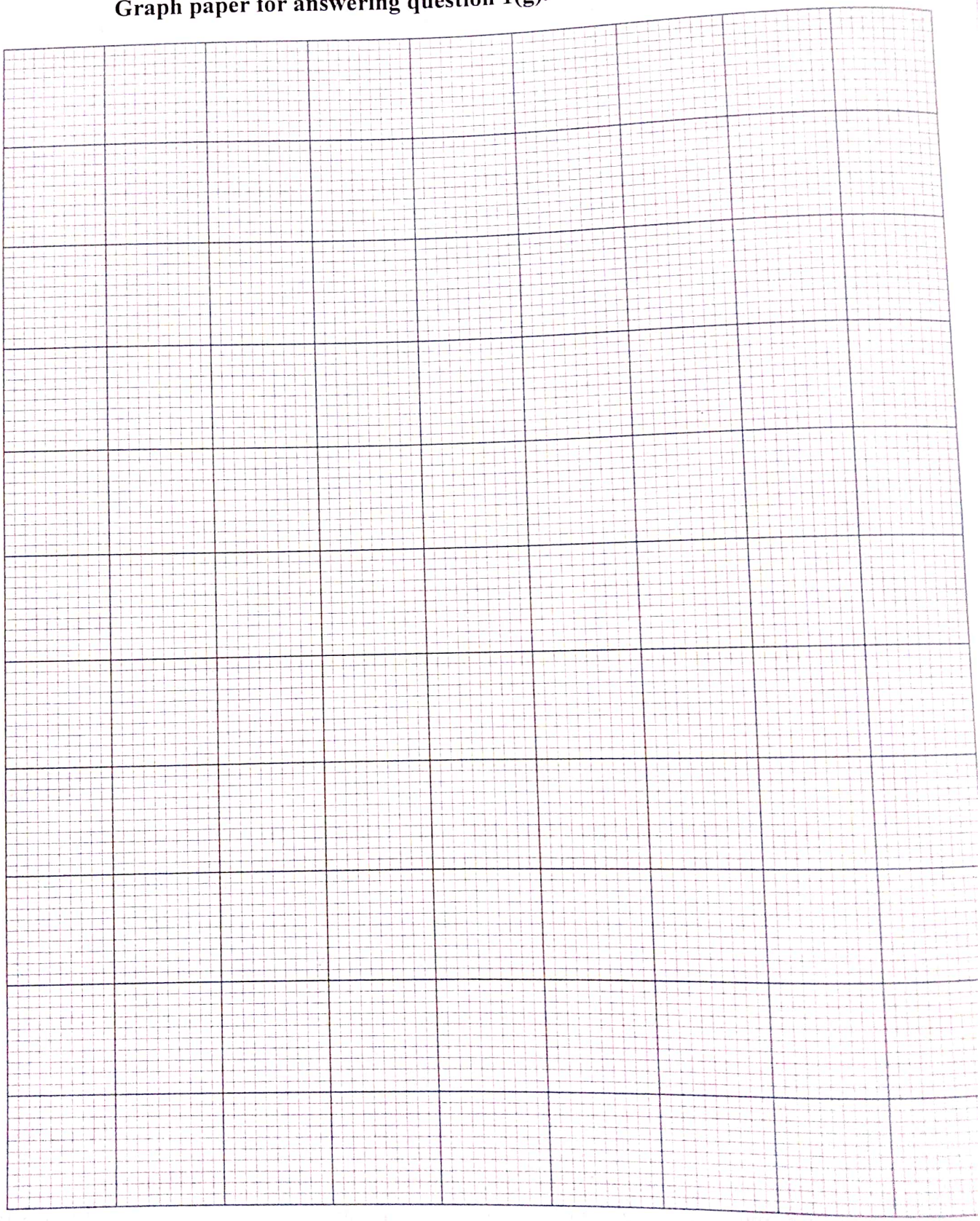
_____

(4 marks)

g. Draw a cross section of the land between grid references **680360** and **700 390** on the graph paper provided on **page 4**. **(10 marks)**

Continued/…

1. (Continued)
Graph paper for answering question 1(g).



2. a. **Figure 1** is a world map showing plate boundaries. Use it to answer questions that follow.

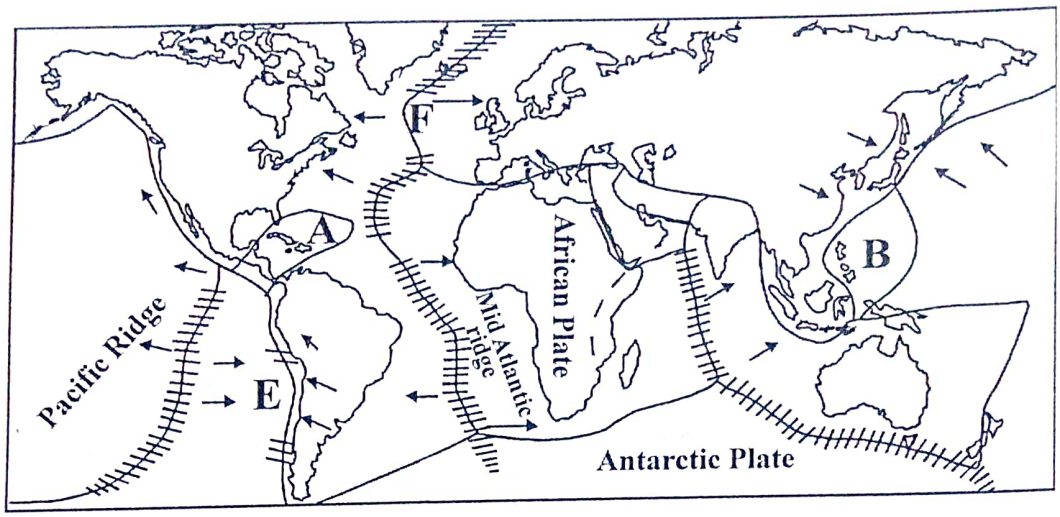


Figure 1

(i) Identify the plates labelled as follows:

A: _____ **(1 mark)**

B: _____ **(1 mark)**

(ii) Describe any **two** features that have developed at plate boundary **E**.

_____

_____

_____

_____

(4 marks)

(iii) With reference to the map, explain how the Mid Atlantic Ridge was formed along boundary **F**.

_____

_____

_____

(3 marks)

Continued/...

2. (Continued)

b. (i) Describe the following in relation to continental drift theory.

1. Pangea

_____

_____

(2 marks)

2. Laurasia

_____

_____

(2 marks)

(ii) Describe any **two** climatic pieces of evidence supporting the continental drift theory.

_____

_____

_____

_____

(4 marks)

c. Mention any **two** ways in which riverine landforms are important.

_____

_____

(2 marks)

d. Explain any **two** conditions necessary for formation of a delta.

_____

_____

_____

_____

(4 marks)

e. Differentiate a bay from a head land.

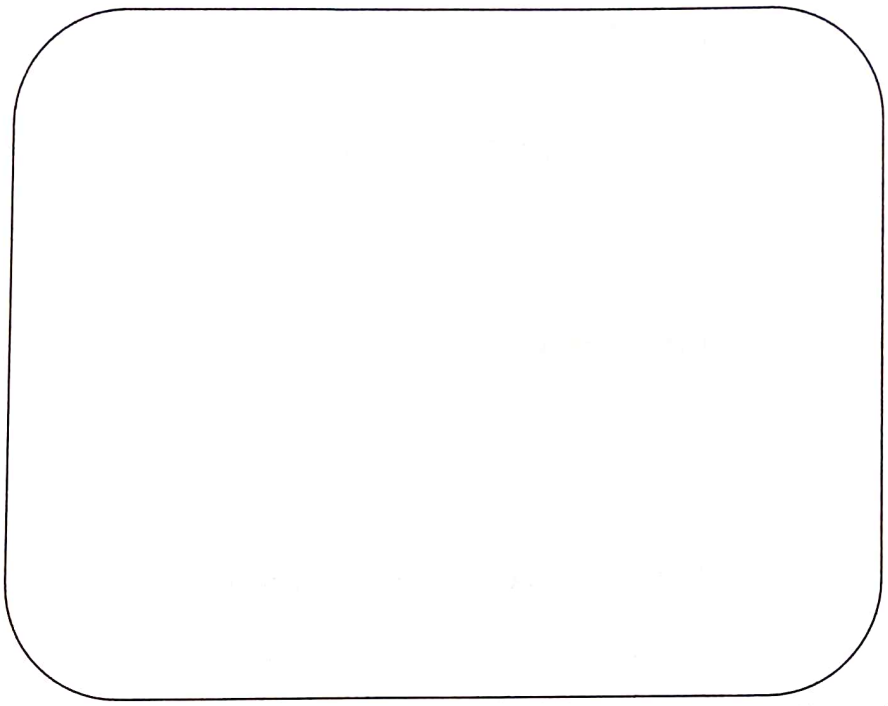
_____

_____

_____

(2 marks)

3. a. (i) Draw a sketch of southern Malawi.



(2 marks)

(ii) On the map show the following:

1. any **two** wetlands in southern Malawi. **(2 marks)**
2. any **two** wildlife reserves in southern Malawi. **(2 marks)**

(iii) Describe any **two** ways of conserving wild life species.

_____

_____

_____

_____

(4 marks)

b. (i) Mention the **two** types of ocean currents.

_____

_____

(2 marks)

(ii) Name any **two** warm ocean currents in the northern hemisphere.

_____

_____

(2 marks)

Continued/…

3. (Continued)

c. Describe how the following factors influence the direction of ocean currents:

(i) shape of continents

_____

_____

(2 marks)

(ii) prevailing winds

_____

_____

(2 marks)

d. State any **three** causes of land pollution.

_____

_____

_____

_____

(3 marks)

e. Explain any **two** strategies of controlling water pollution.

_____

_____

_____

_____

_____

_____

(4 marks)

Section B (25 marks)

Answer **one** question only in this Section.

4. a. **Figure 2** is an illustration of features formed due to faulting. Use it to answer questions that follow.

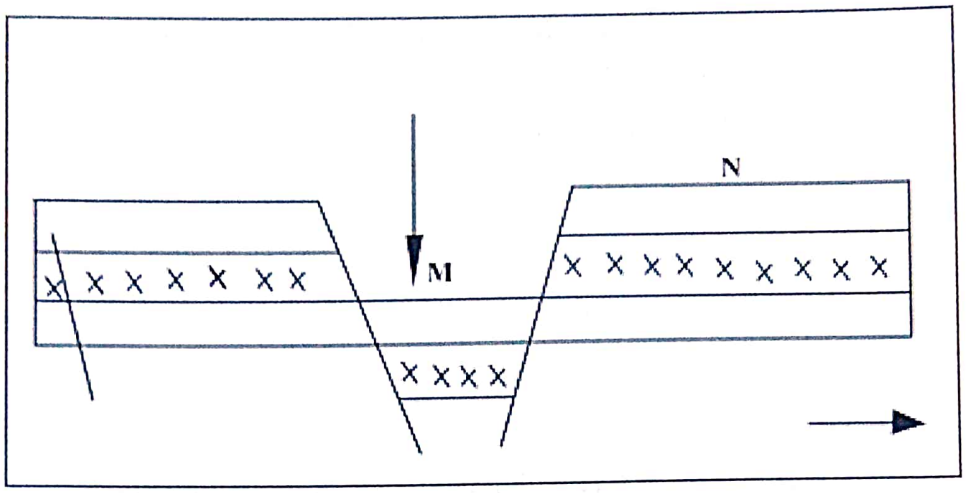


Figure 2

(i) Identify the features labelled as follows:

M: _____ **(1 mark)**

N: _____ **(1 mark)**

(ii) Mention the type of fault illustrated in **Figure 2**.

_____ **(1 mark)**

(iii) State the force that is responsible for the development of the fault.

_____ **(1 mark)**

(iv) Briefly explain how feature **M** is formed.

_____

_____

_____

_____

(3 marks)

Continued/...

4. (Continued)

b. (i) Define the term "prevailing winds".

_____

_____

(2 marks)

(ii) Explain the effects of the following prevailing winds on affected land masses.

1. westerlies

_____

_____

(2 marks)

2. polar

_____

_____

(2 marks)

(iii) State any **two** characteristics of prevailing winds.

_____

_____

(2 marks)

c. **Figure 3** is an illustration of a pressure map. Use it to answer questions that follow.

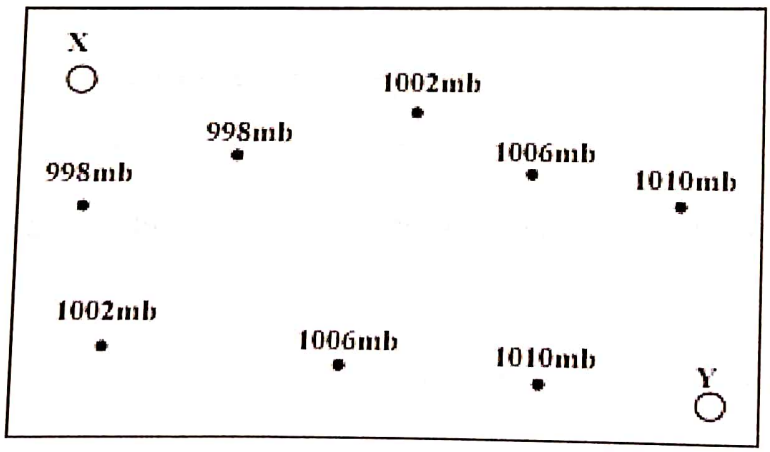


Figure 3

(i) Draw isobars on the map **(4 marks)**

(ii) Using an arrow show the direction of wind between points **X** and **Y**. **(2 marks)**

Continued/...

4. (Continued)

d. (i) Define the term "clouds".

_____

_____

(1 mark)

(ii) Describe the weather patterns associated with each of the following type of clouds.

1. nimbostratus

_____

_____

(2 marks)

2. cumulonimbus

_____

_____

(2 marks)

5. a. **Figure 4 is** a diagram showing the relationship between air pressure and altitude. Use it to an answer questions that follow.

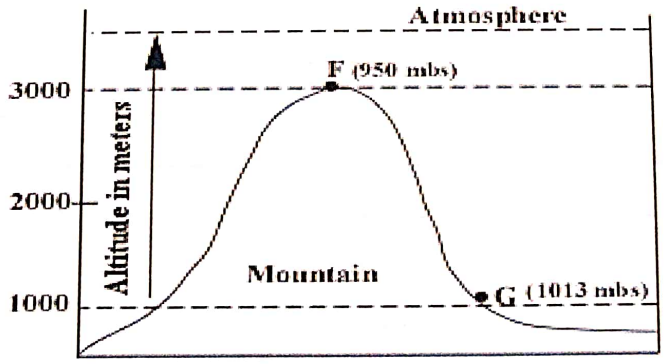


Figure 4

(i) Find the air pressure difference between points **F** and **G**.

_____

_____

(2 marks)

Continued/...

5. a. **(Continued)**

(ii) Account for the air pressure patterns at each of the following points.

F: _____

_____

_____

(3 marks)

G: _____

_____

_____

(3 marks)

b. With the aid of a labelled diagram, describe the process for the formation of Cyclonic rainfall.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

(8 marks)

5. **(Continued)**

c. (i) Define the term "earthquake".

_____

_____

(1 mark)

(ii) Describe the following terms used in the study of earthquakes:

1. magnitude

_____

_____

(2 marks)

2. intensity

_____

_____

(2 marks)

(iii) Mention any **two** human activities which promote the occurrence of earth tremors.

_____

_____

(2 marks)

(iv) State any **two** environmental impacts of earth quakes.

_____

_____

(2 marks)

END OF QUESTION PAPER

B: This paper contains 13 printed pages.

Section A (85 marks)

Answer **all** questions in the spaces provided under each question.

1. Study the **1: 50,000** map extract of Kasungu and use it to answer questions that follow.

a. (i) Identify the human made feature located at **six-figure** grid reference **376824**.

_____

(1 mark)

(ii) Find the **six-figure** grid reference for the trigonometric station **519/MWT**.

_____

(2 marks)

b. (i) Mention the general direction of flow for Mavwemba river between **northing 82** and **northing 84.**

_____

(1 mark)

(ii) Identify the drainage pattern being displayed by Dwangwa river between **easting 36** and **easting 38.**

_____

(1 mark)

(iii) Find the bearing of trigonometric point **515/MWT** in grid **3577** from Kambulu school in grid **3676.**

_____

_____

(3 marks)

c. (i) Mention any **two** methods of relief representation which have used on the map.

_____

_____

(2 marks)

Continued/…

1. c. **(Continued)**

(ii) Identify any **two** settlement patterns which are being shown on the map.

_____

_____

(2 marks)

(iii) Account for the absence of settlements in the area located on the South Western part of the map.

_____

_____

_____

(3 marks)

d. (i) Explain whether Matondo village in grid **3581** and Kwalira village in grid **4382** are intervisible.

_____

_____

_____

(3 marks)

(ii) Give evidence to show that the following human activities take place in the area captured on the map:

1. farming

_____

_____

(1 mark)

2. wild life conservation

_____

_____

(1 mark)

1. (Continued)

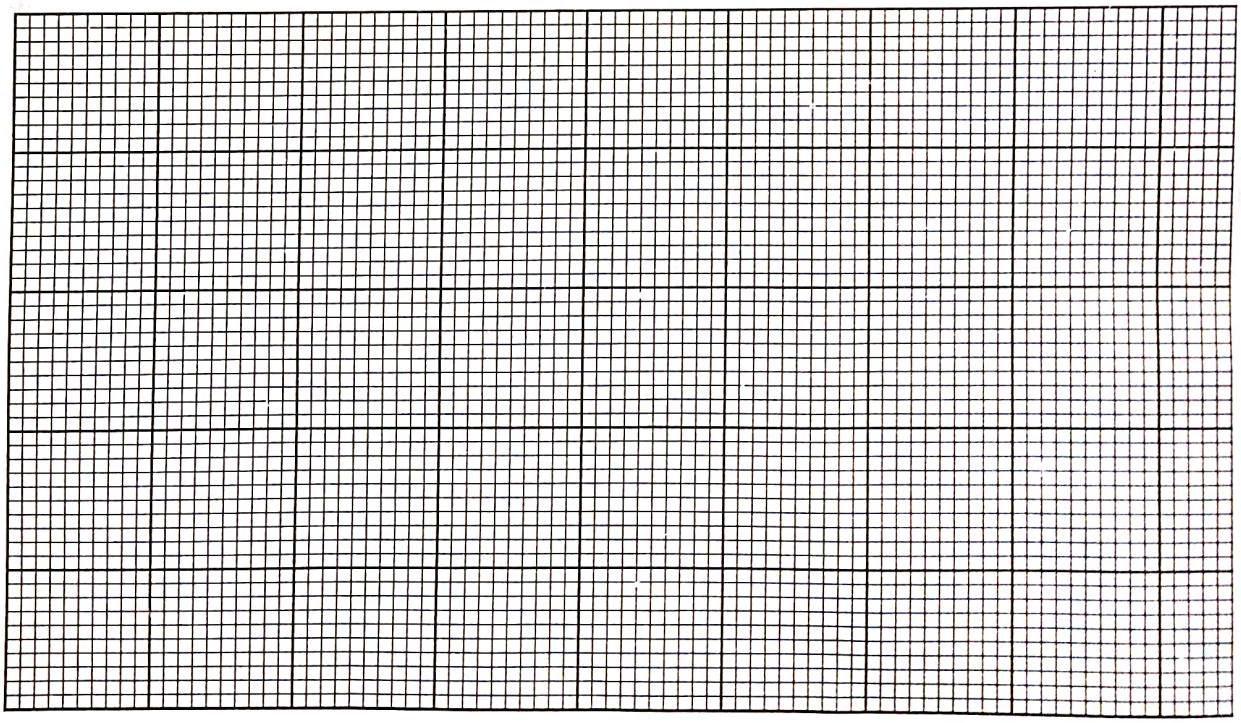
e. Calculate the total area for Chibwazi estate as shown on the map, giving the answer to the nearest **km²**.

(6 marks)

f. (i) Reduce the area on the map south of **northing 77** between **easting 35** and **easting 40** by half of its original size. Use the graph paper provided on this page. **(4 marks)**

(ii) On the reduced map show the following:

1. Chioza dip tank **(1 mark)**
2. Kasungu national park **(1 mark)**
3. **T 323** road **(2 marks)**
4. New scale **(1 mark)**



Continued/...

2. a. (i) Give any **one** example of inner planets.

_____

(1 mark)

(ii) Mention any **two** characteristics of dwarf planets.

_____

_____

(2 marks)

(iii) State any **two** differences between Rotation and Revolution of the Earth.

_____

_____

_____

_____

(2 marks)

b. (i) Describe the process for the formation of Rift valleys through tension force.

_____

_____

_____

_____

_____

(4 marks)

(ii) Explain any **two** ways in which Rift valleys are economically important.

_____

_____

_____

_____

_____

_____

(4 marks)

Continued/…

2. (Continued)

c. (i) Define each of the following types of volcanoes:

1. active

_____

_____

(1 mark)

2. extinct

_____

_____

(1 mark)

(ii) State any **two** negative effects of volcanic eruptions

_____

_____

(2 marks)

d. **Figure 1** is an illustration of the Rock cycle.

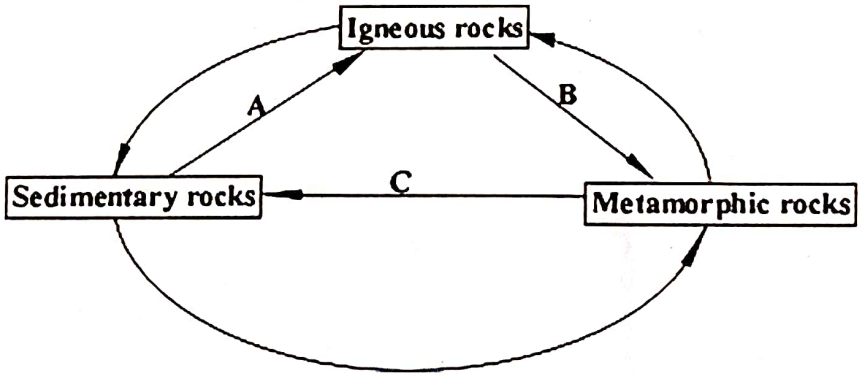


Figure 1

(i) Mention any **two** processes represented by arrow marked **A**.

_____

_____

(2 marks)

2. (Continued)

(ii) Name any **two** agents which influence process **B**.

_____

_____

(2 marks)

(iii) Explain the process of rock formation through process **C**.

_____

_____

_____

_____

(4 marks)

3. a. (i) Describe any **two** human activities which lead to depletion of fish resources.

_____

_____

_____

_____

(4 marks)

(ii) Explain the effect of poaching on the environment.

_____

_____

(2 marks)

b. (i) Define the term "environmental management".

_____

_____

(1 mark)

3. b. **(Continued)**

(ii) Explain any **two** environmental management strategies related to Legislation which are practiced in Malawi.

_____

_____

_____

_____

(4 marks)

c. (i) Mention any **two** resources apart from land which are affected when land is polluted.

_____

_____

(2 marks)

(ii) Describe any **two** measures which are used by industries to control pollution.

_____

_____

_____

_____

(4 marks)

d. Account for the depletion of indigenous forests in Malawi. Give any **two** points.

_____

_____

_____

_____

_____

_____

(4marks)

Continued/…

3. **(Continued)**

e. Explain any **two** pieces of evidence showing climate change in Malawi.

_____

_____

_____

_____

_____

_____

(4 marks)

Section B (25 marks)

Answer **one** question only in this section in the spaces provided under each question.

4. a. With aid the aid of a labelled diagram describe the occurrence of a sea breeze.

_____

_____

_____

_____

(7 marks)

b. Explain any **two** ways in which sea breezes are economically important.

_____

_____

_____

_____

(4 marks)

Continued/…

4. **(Continued)**

c. Describe the role of atmospheric tiny solid particles in the formation of precipitation.

_____

_____

_____

(2 marks)

d. **Figure 2** is a world map showing climatic regions.

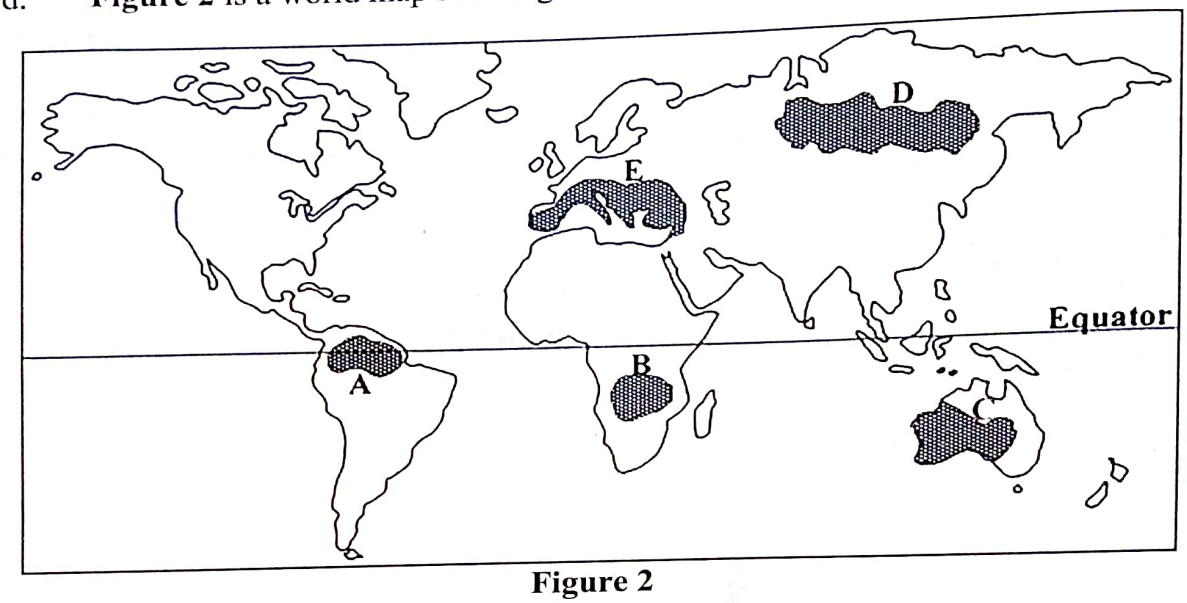


Figure 2

(i) Identify the climates experienced in the regions labelled **A** and **C**.

A: _____ **(1 mark)**

C: _____ **(1 mark)**

(ii) Mention any **two** countries in Africa which experience the climate of region labelled **A**.

_____

_____

(2 marks)

Continued/…

4. d. **(Continued)**

(iii) Describe any **two** ways through which plants adapt to climatic conditions of the region labelled **C.**

(4 marks)

(iv) Explain any **two** climatic problems experienced in areas occurring under climatic region labelled **B.**

(4 marks)

5. a. (i) Define the term "seasons."

(1 mark)

(ii) Explain how the tilting of the Earth's axis causes seasons.

(3 marks)

5. (Continued)

b. **Figure 3** is a world map showing distribution of air masses.

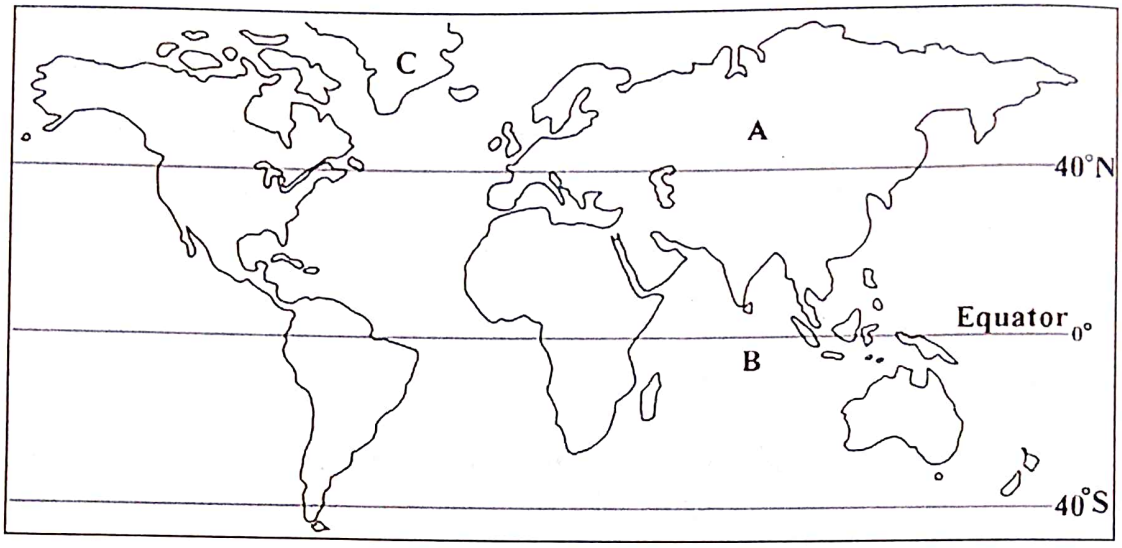


Figure 3

(i) Name the air masses found in regions labeled **B** and **C.**

B: _____ **(1 mark)**

C: _____ **(1 mark)**

(ii) State any **two** differences between the air masses found in regions labelled **A** and **B.**

_____

_____

(2 marks)

(iii) Account for the absence of rainfall in regions lying under air mass **C.**

_____

_____

_____

(3 marks)

5. **(Continued)**

c. (i) Give any **two** examples of solid precipitation.

_____

_____

(2 marks)

(ii) State any **two** characteristics of Frontal rainfall.

_____

_____

_____

(2 marks)

d. City **X** is located **45°** west of the Equator. Calculate the actual time of the city if the Greenwich time is **2:00 pm**. **(4 marks)**

e. **Figure 4** is a diagram showing vegetation.

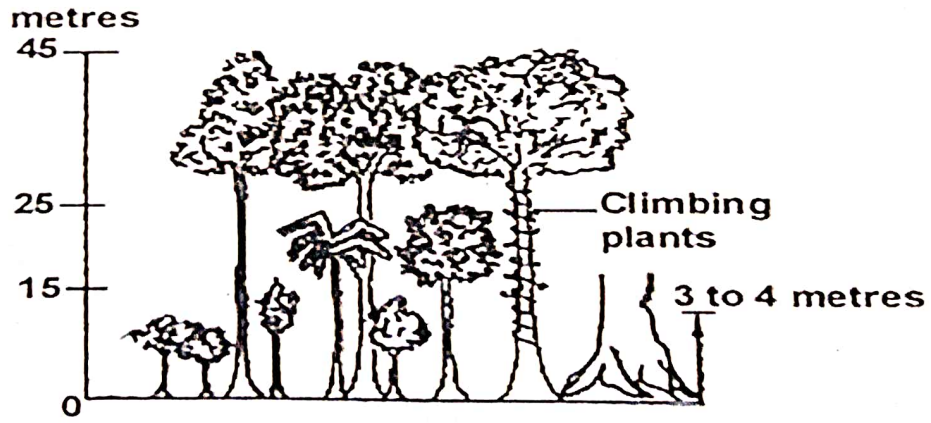


Figure 4

(i) Identify the type of vegetation shown in the diagram.

_____

(1 mark)

5. e. **(Continued)**

(ii) Name the type of climate which is associated with the vegetation shown in the diagram.

_____

(1 mark)

(iii) Describe any **two** ways through which the vegetation in the diagram adapts to its climatic conditions.

_____

_____

_____

_____

(4 marks)

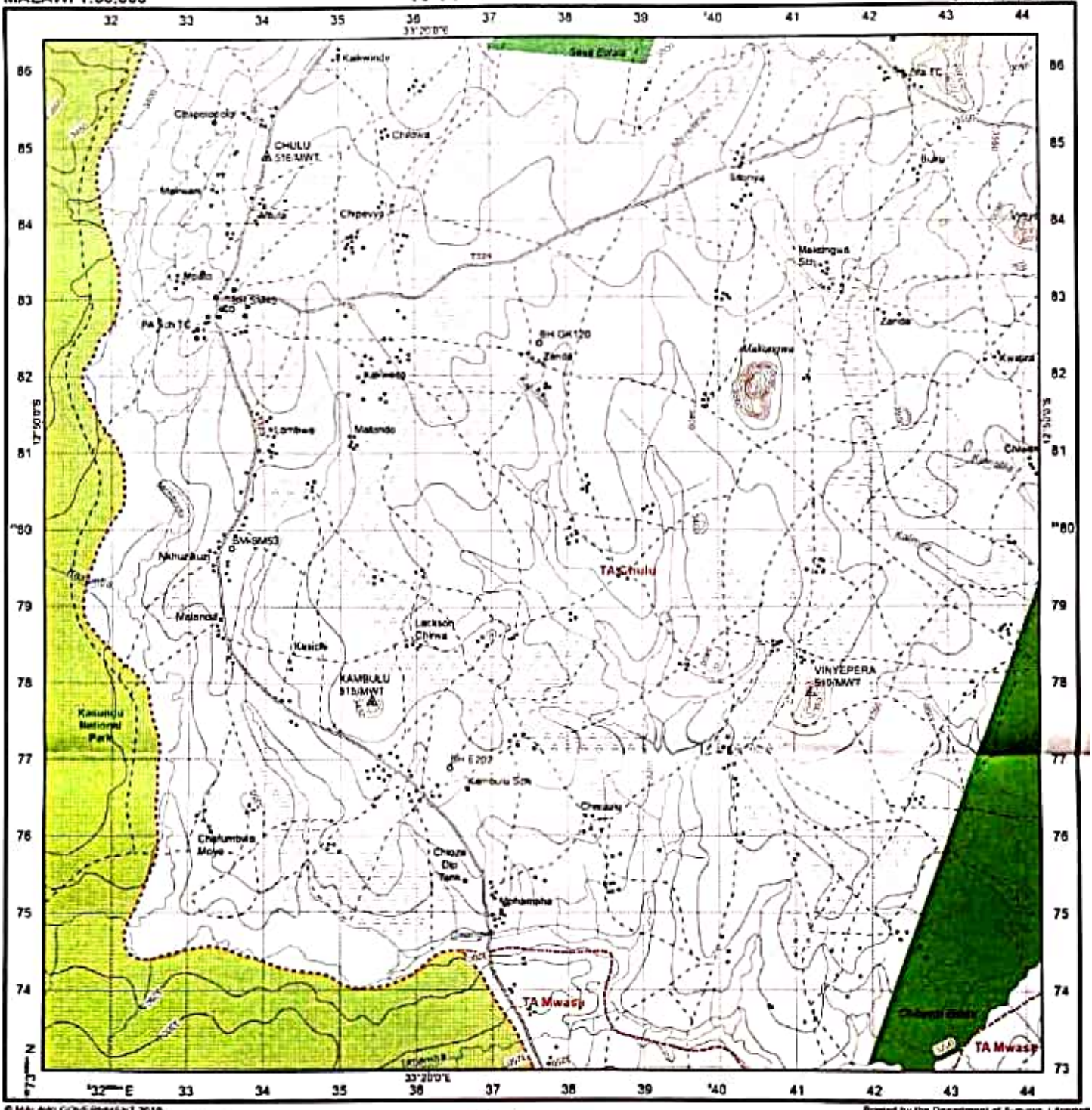
END OF QUESTION PAPER

***NB:* This paper contains 14 printed pages.**

MALAWI 1:50,000

K A S U N G U

SHEET 1233C4



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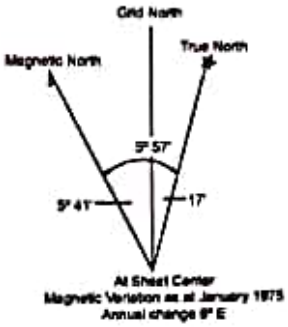
Printed by the Department of Surveys, Lilongwe

Scale 1:50,000

0 0.5 1 2 3 4 5 Kilometers

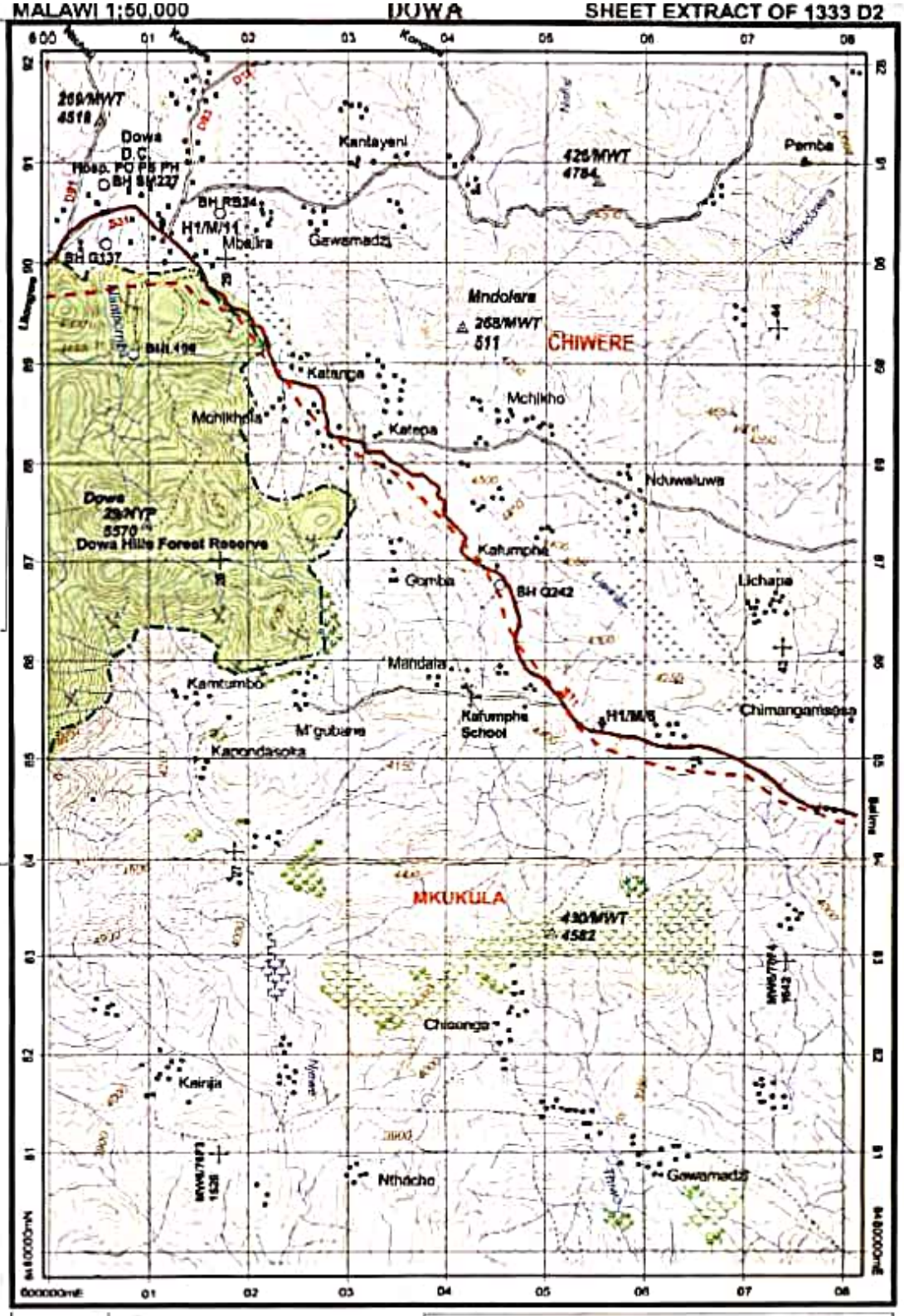
Legend

- Trigonometric Station
- Permanent Building
- Spot Height
- Well, Spring, Borehole
- International Boundary Pillar
- Town or Cities with Permanent Buildings
- Other Populated Area
- Huts/Villages
- Main Road
- Secondary Road
- District Road
- Tertiary Road
- Truck
- Bridge/Culvert
- Railway Line
- Power Line
- Contour (V.I.50ft)
- Boundaries
  - International
  - Regional
  - District
  - Traditional Authority
  - National Park
  - Township
  - Game Reserve, Forest Reserve
- General Cultivation
- Scrub
- Orchard/Bush
- Light Forest
- Protected Area
- Wetland
- Waterfall, Waterbourse, Rapid, Dam
- Airstrip/Landing Area
- Lake
- Escarpment/Plantation
- Sands
- Quarry
- Marsh



At Sheet Center
Magnetic Variation as at January 1975
Annual change 8' E

MALAWI 1:50,000 DOWA SHEET EXTRACT OF 1333 D2



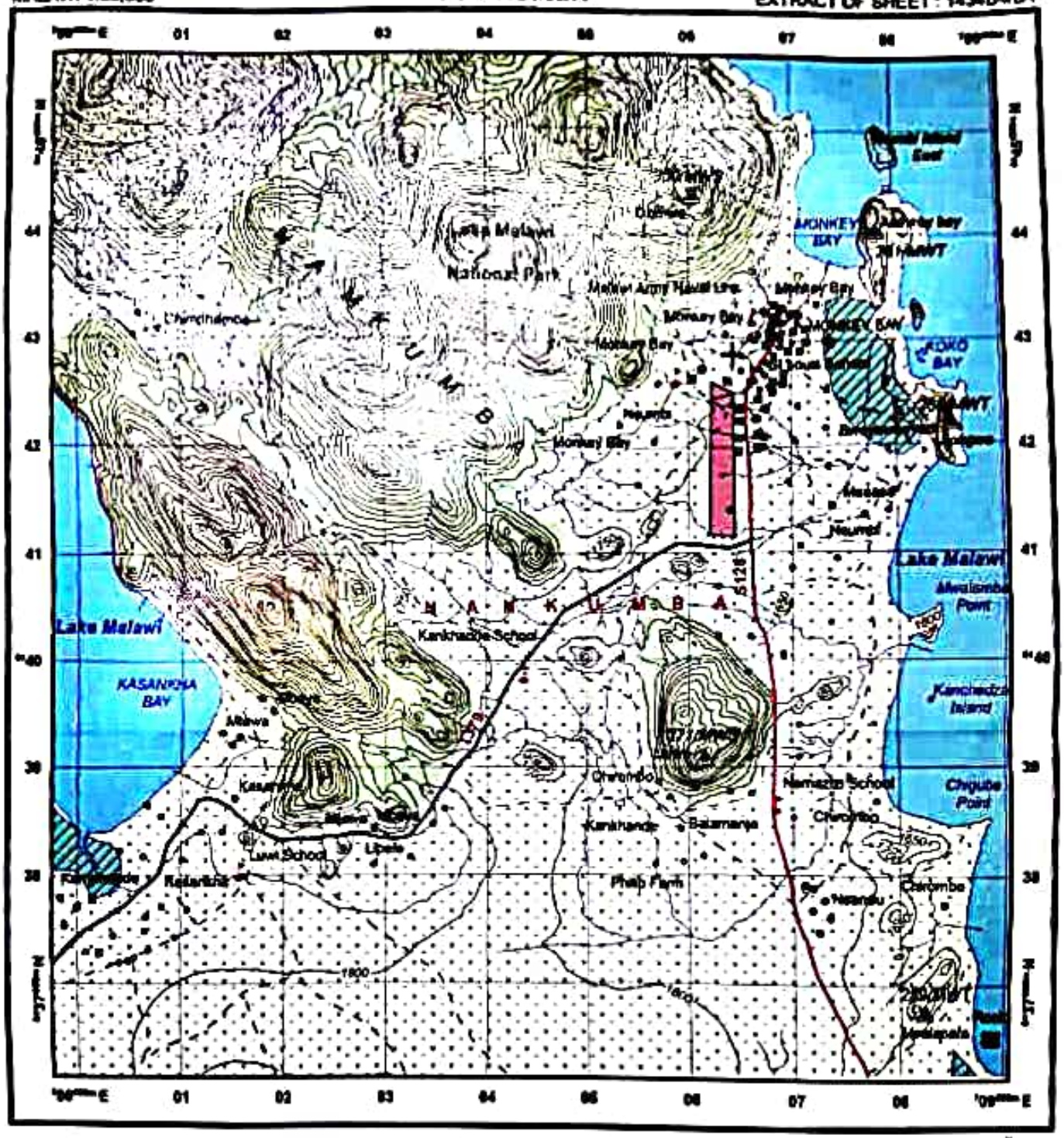
LEGEND/ KEY

- Villages/Schools
- Trading Centres
- Borehole
- Trigonometrical Station
- Air Photo
- Bench Mark
- Traditional Authority Boundary
- Forest Reserve Boundary
- Bridges
- Rivers
- Contours
- Main Road
- District Road
- Tracks and footpaths
- Wetland
- Orchard Bush
- General Cultivation
- Shrubs
- Marshes
- Forest Reserve

MALAWI 1:50,000

NANKUMBA

EXTRACT OF SHEET : 1434B4/D4



SCALE 1:50,000

1 0.5 0 1 2 Kilometers

Legend

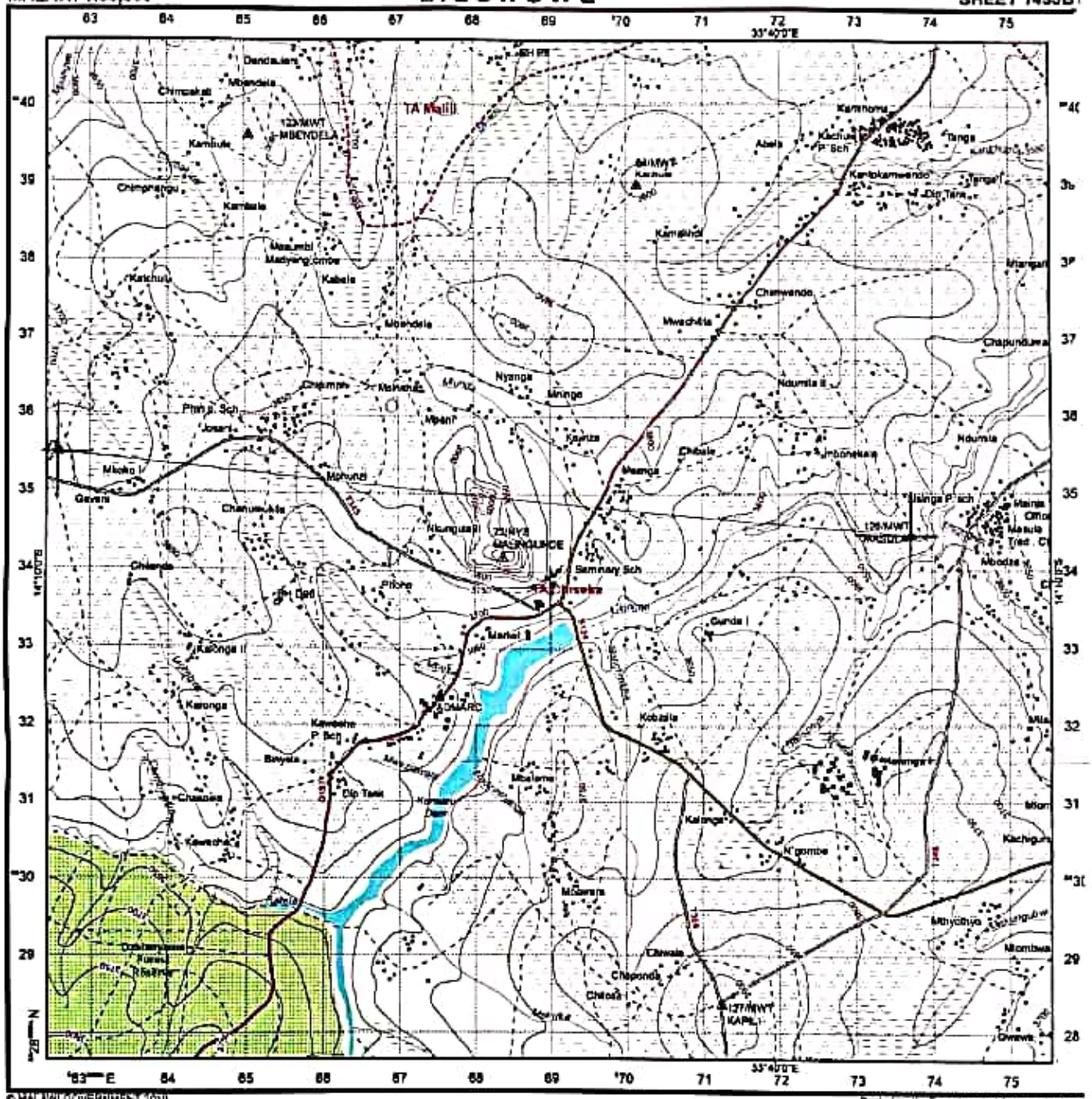
- Schools
- Villages
- Trig Pillars
- Centres
- Health Facilities
- Rock
- Historic Site
- Rivers
- Contours
- Secondary Road
- Tertiary Road
- Other Roads
- Airfield
- Protected Area
- Lake
- Wetlands
- Cultivation

WGS_1984_UTM_Zone_36S
WKID: 32736 Authority: EPSG
Projection: Transverse_Mercator
false_easting: 500000.0
false_northing: 10000000.0
central_meridian: 33.0
scale_factor: 0.9996
latitude_of_origin: 0.0
Linear Unit: Meter (1.0)

MALAWI 1:50,000

LILONGWE

SHEET 1433B1



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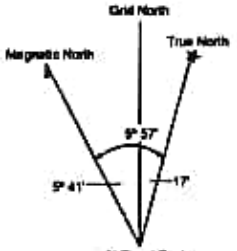
Scale 1:50,000

0 0.5 1 2 3 4 5 Kilometers

Legend

- Trigonometric Station
- Permanent Building
- Spot Height
- Well, Spring, Borehole
- International Boundary Pillar
- Town or Cities with Permanent Buildings
- Other Populated Area
- Huts/Villages
- Main Road — M10
- Secondary Road — S23
- District Road — D48
- Tertiary Road — T13
- Track
- Bridge/Culvert
- Railway Line
- Power Line — 33 kV
- Contour (V.I.50ft) — 2050, 2000, 1950
- Boundaries
  - International
  - Regional
  - District
  - Traditional Authority
  - National Park
  - Township
  - Game Reserve, Forest Reserve
- General Cultivation
- Scrub
- Orchard/Bush
- Light Forest
- Protected Area
- Wetland
- Waterfall, Watercourse, Rapid, Dam
- Airborne/Landing Area
- Lake
- Estate/Plantation
- Sands
- Quarry
- Marsh

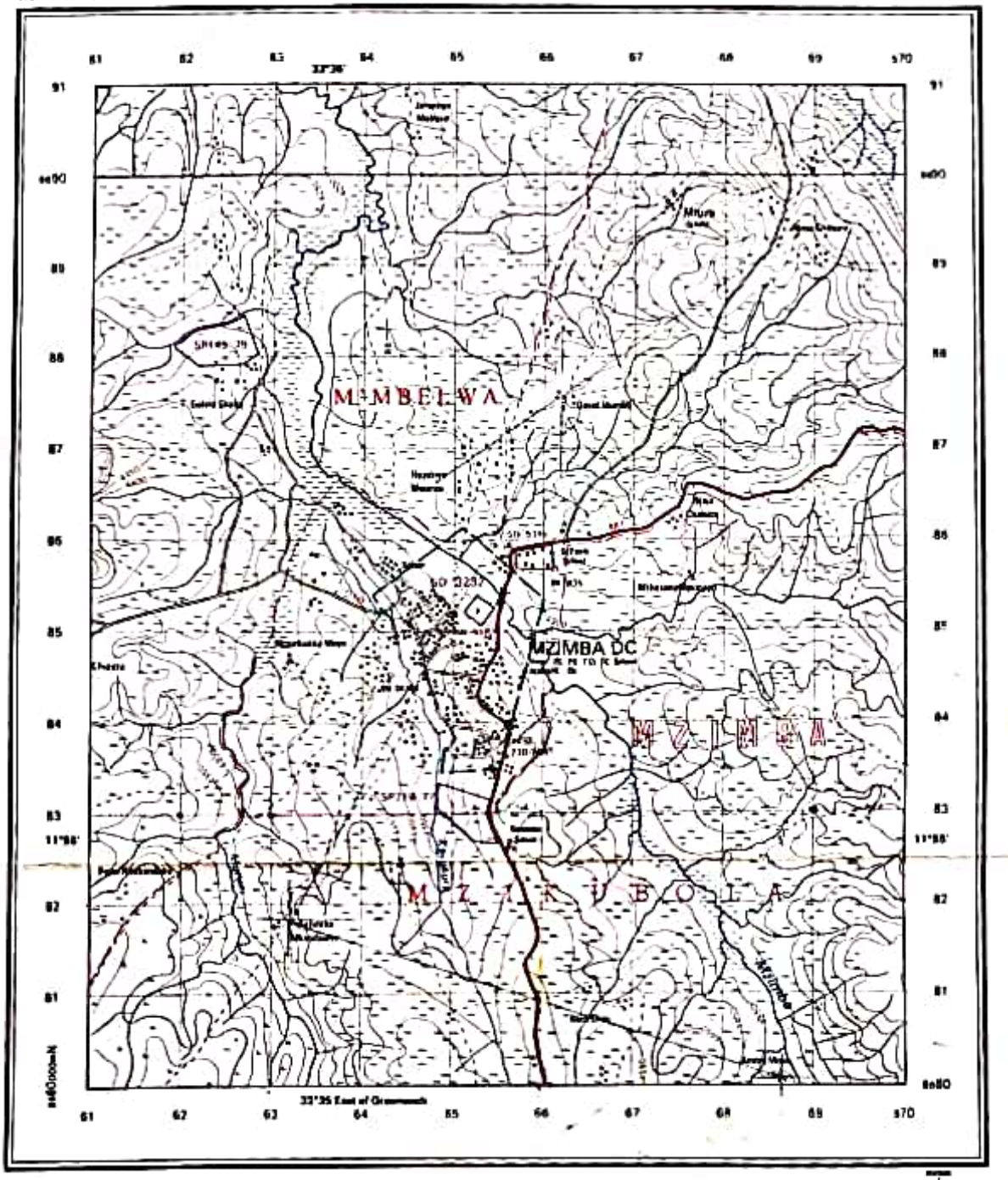


At Sheet Center
Magnetic Variation as at January 1975
Annual change 8' E

MALAWI 1: 50,000

MZIMBA

EXTRACT OF SHEET 1333D3



SCALE 1:50 000

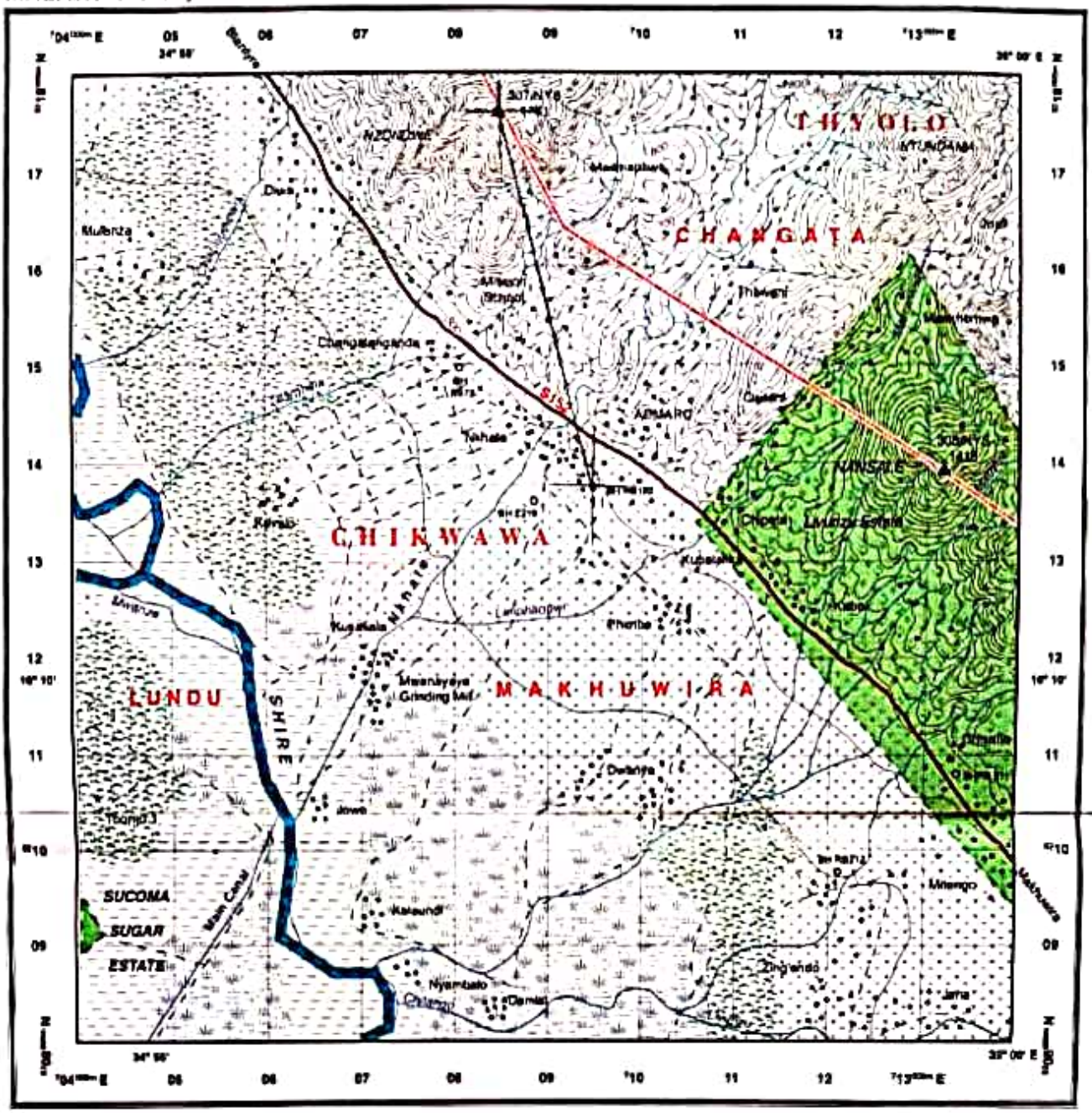
Metres 1000 500 0 1 2 3 4 5 6 7 Kilometres

Miles 1 0 1 2 3 4 5 6 Miles

Yards 1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 Yards

MALAWI 1 : 50,000

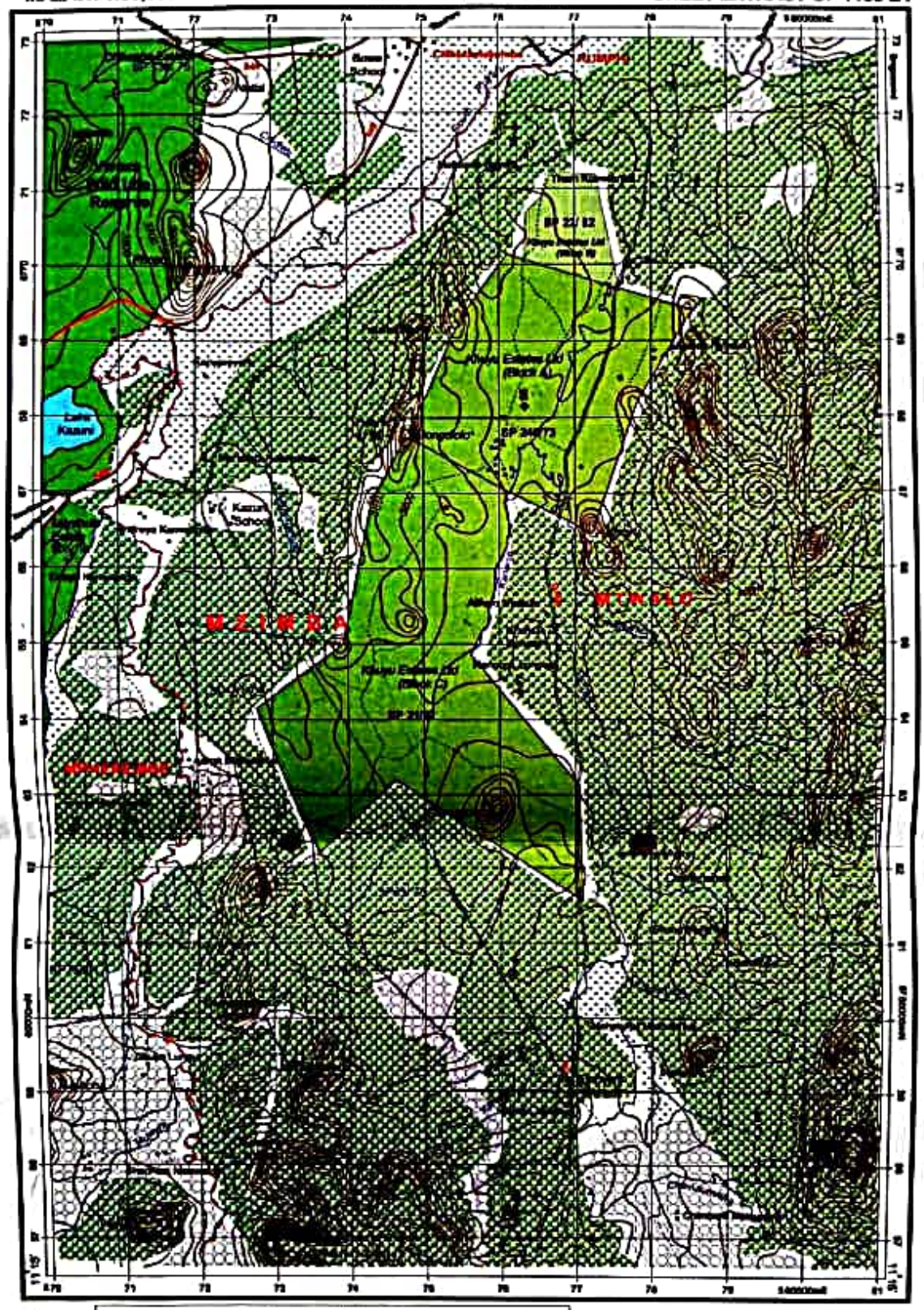
NKHATE


THYOLO
MTUNDANJI
CHANGATA
CHIKWAWA
LUNDU
MAKHUWIRA
SHIRE
SUCOMA
SUGAR
ESTATE
Main Canal
Mwanayeya
Grinding Mill
Mulanje
Dwambazi
Nchalo
Kasisi
Kapichira
Mwanza
Thabwa
Mbenje
Mkhate
Mwanza
Mwanza
Mwanza

MALAWI 1:50,000

LAKE KAZUNI

SHEET EXTRACT OF 1133 B1



Legend/ Key

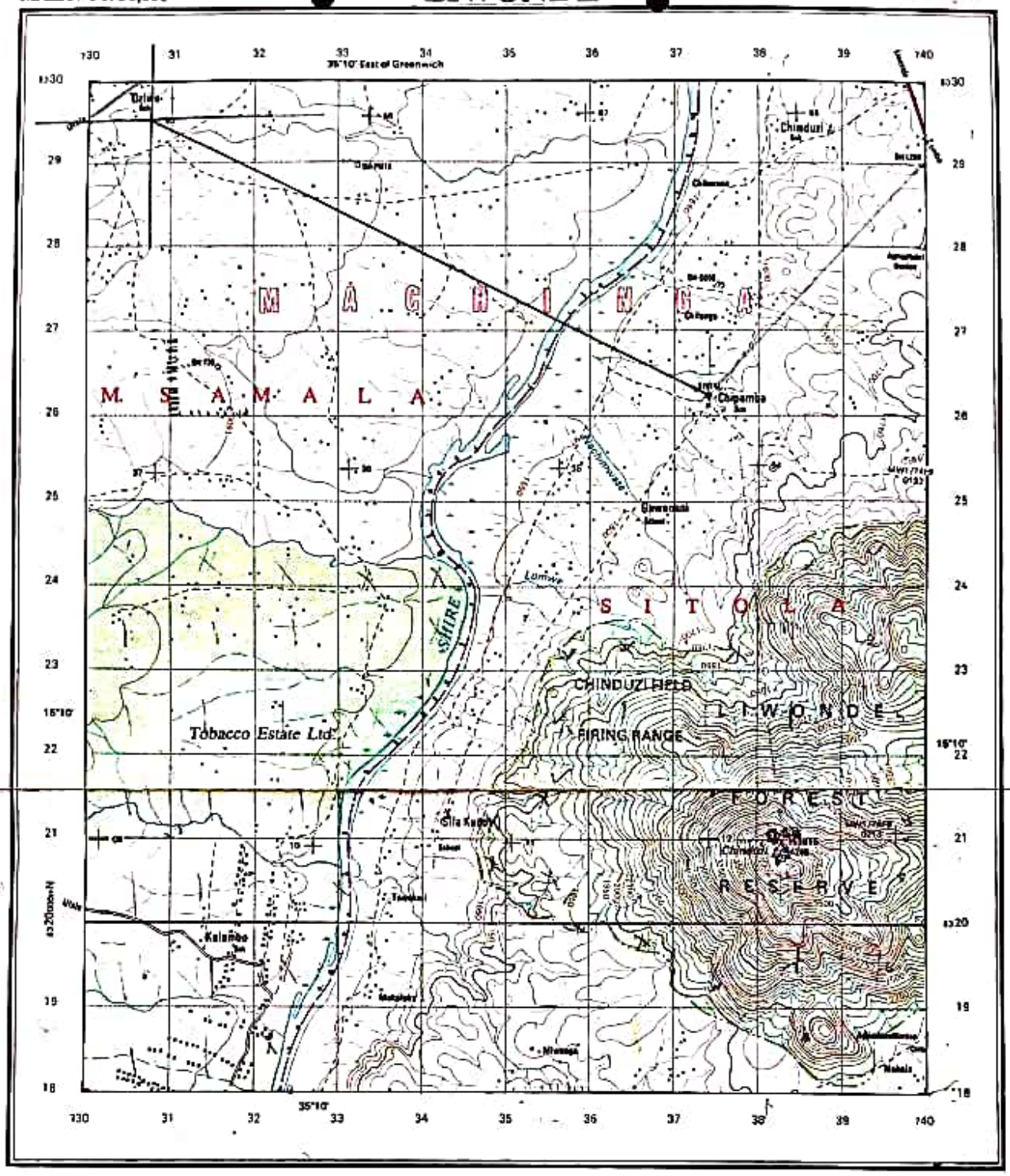
- Bench Mark
- Air Photo
- Schools/ Villages
- Trigonometrical Station
- Trading Centres
- District Boundary
- Traditional Authority Boundary
- Reserve Boundary
- Contours
- Main Road
- Secondary Road
- District Road
- Tracks and footpaths
- Bridge
- Rivers
- Lake
- Dambo
- Game Reserve, Forest Reserve, Protected Area
- Cadastral Plan
- Estates and Plantation
- General Cultivation
- Light Forest

SCALE 1:50,000

1 0 1 2 Kilometers

MALAWI 1: 50,000

LIWONDE



SCALE 1:50 000

Metres 1000 500 0 1 2 3 4 5 Kilometres 6

Town or area with permanent buildings

Other populated areas

Compounds

Huts, Villages

Roads— Main

Secondary

District and other

International

Game Reserve, Forest Reserve, Controlled Area

Well, Spring, Borehole, Reservoir

Forest

Light Forest

General Cultivation

Erosion and Plantations

Contours (Vertical Interval)

Grid North

True North

Magnetic North

7° 49'

7° 24'

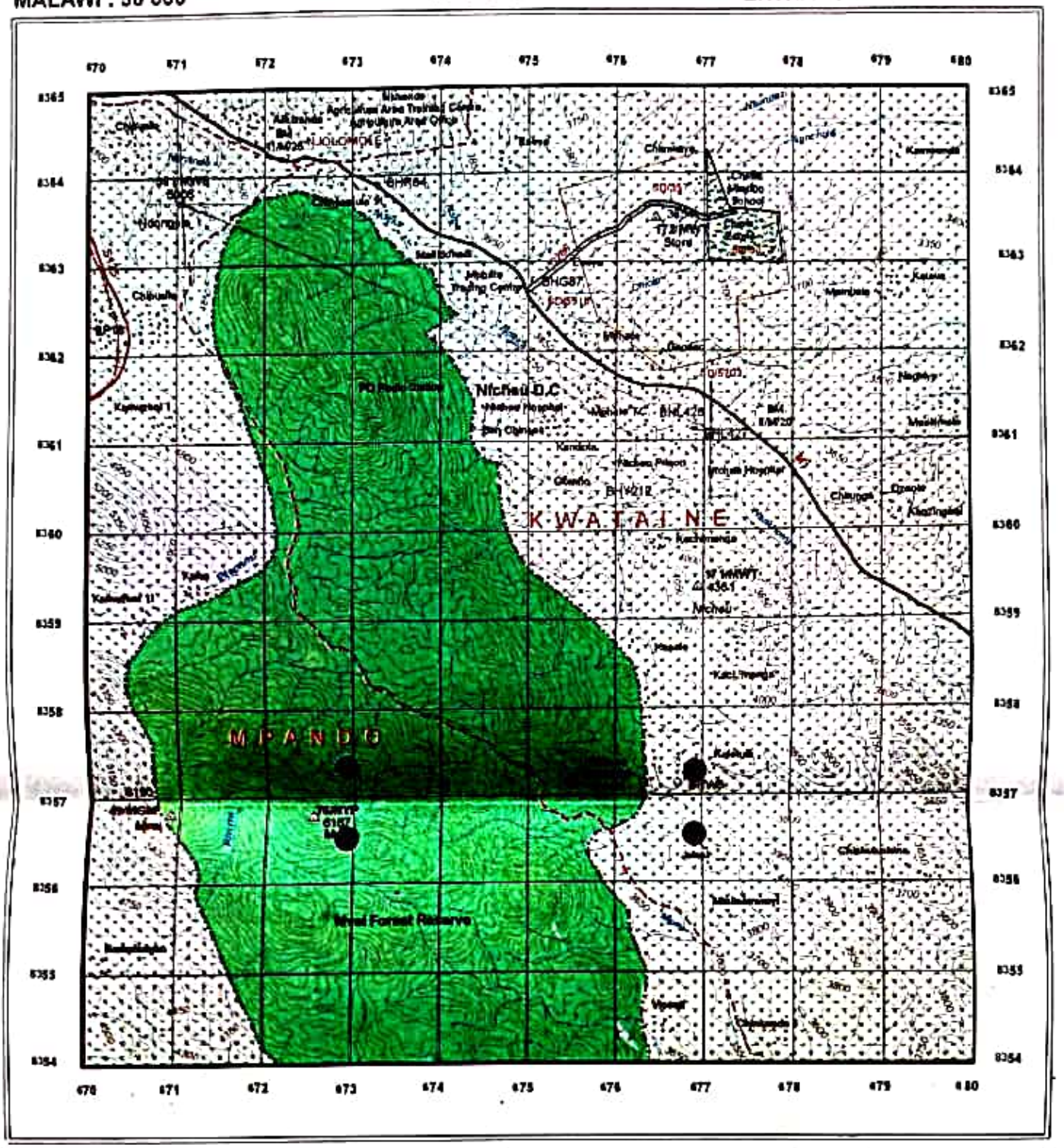
25'

At Sheet Centre
Magnetic Variation as at January 1970
Annual Change 1° East

MALAWI : 50 000

NTCHEU

EXTRACT OF SHEET 1434D3



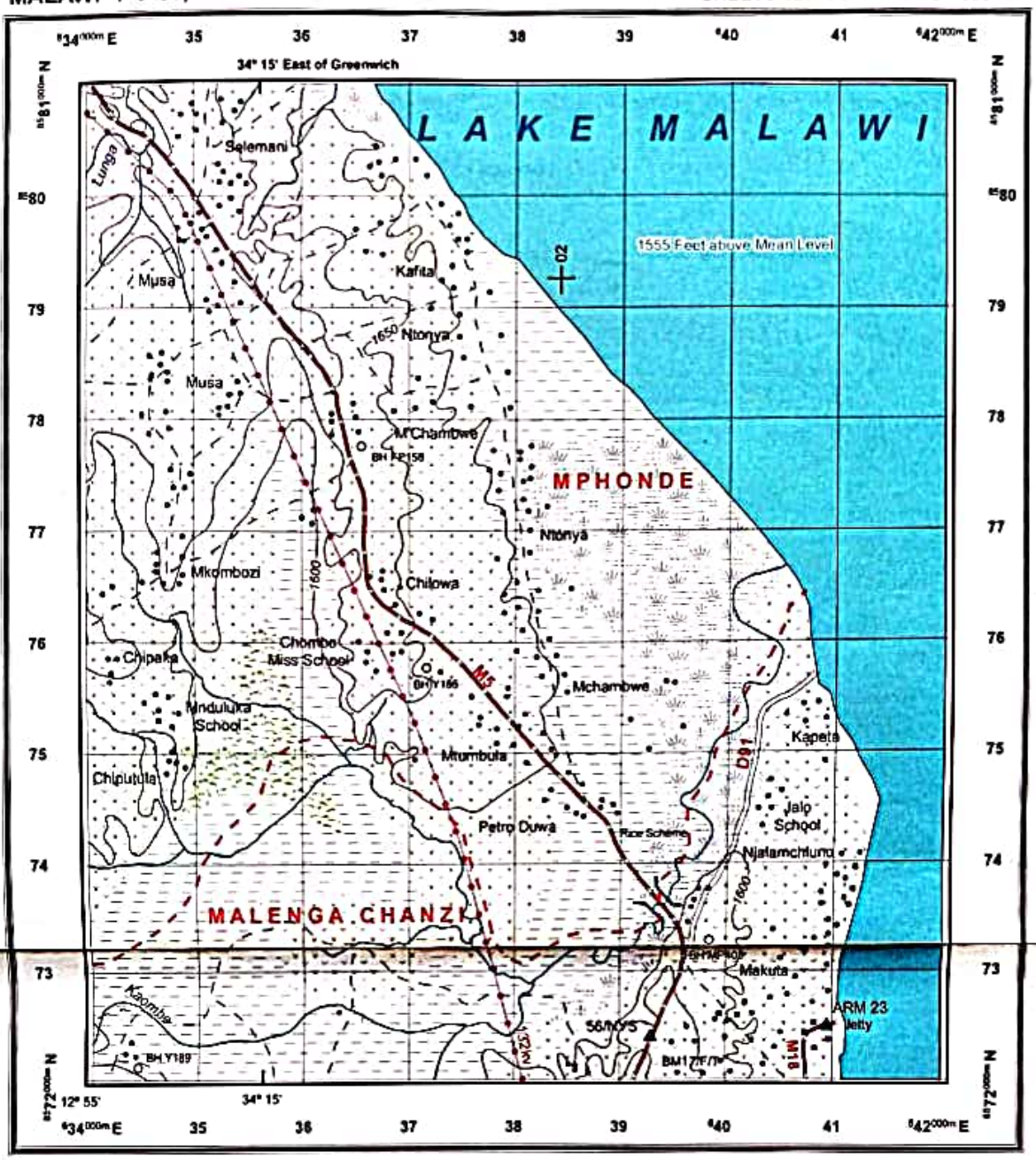
SCALE 1 : 50 000

0 0.5 1 2 3 4 Kilometres

N
W E
S

Villages	District Road	Rivers	
Borehole	Secondary Road	Game Reserve Forest Reseeve Controlled Area	
Trigonometrical Pillar	International Boundary	Estates and Plantations	
Main Road	Traditional Authority Boundary	Seasonal Marsh or Dambo	
Other Roads	Contours	General Cultivation	

MALAWI 1 : 50,000 **NKHOTAKOTA** SHEETS 1234C3 & PART OF 1234C4



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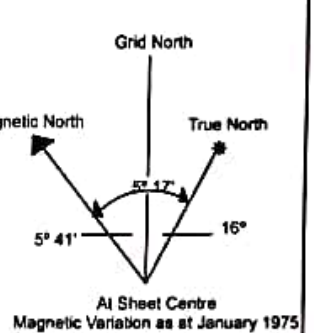
Published by the Department of Surveys, Lilongwe

SCALE 1:50,000

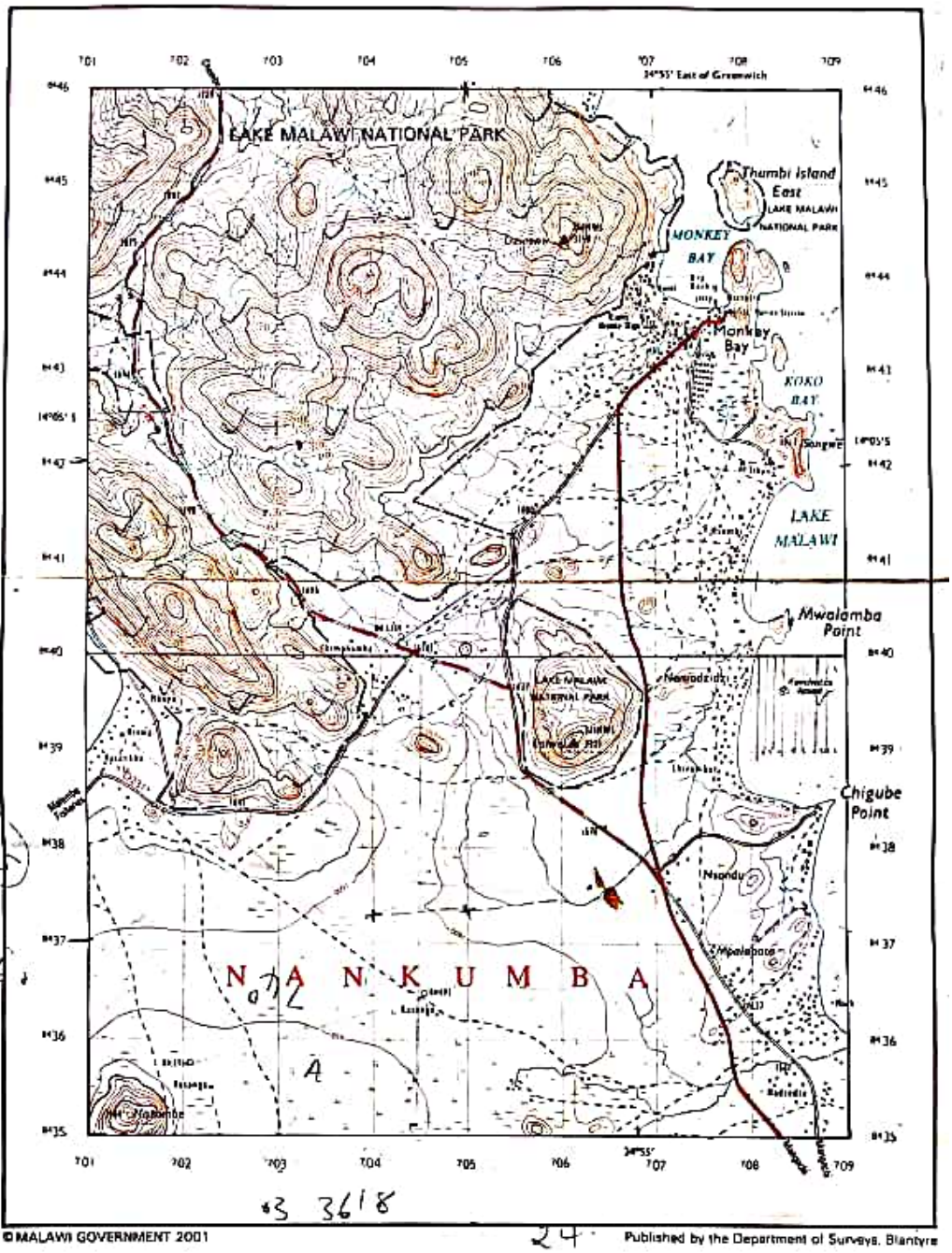
Metres 1 0.5 0 1 2 3 4 5 6 7 Kilometers

Legend

- Other Populated Areas
- Compounds
- Villages, Huts
- Permanent Building (annotated) — PO
- Well, Spring, Borehole
- Trigonometric Station
- TA Boundary
- Scondary Road
- District Road
- Main Road
- Track
- Bridge, Culvert
- Rivers
- Contours — 2050 2000 1950
- Power Line
- Grasslands
- Marshes
- Rainfed Cultivation
- Wetland Cultivation
- Lake



At Sheet Centre
Magnetic Variation as at January 1975
Annual Change 6° E



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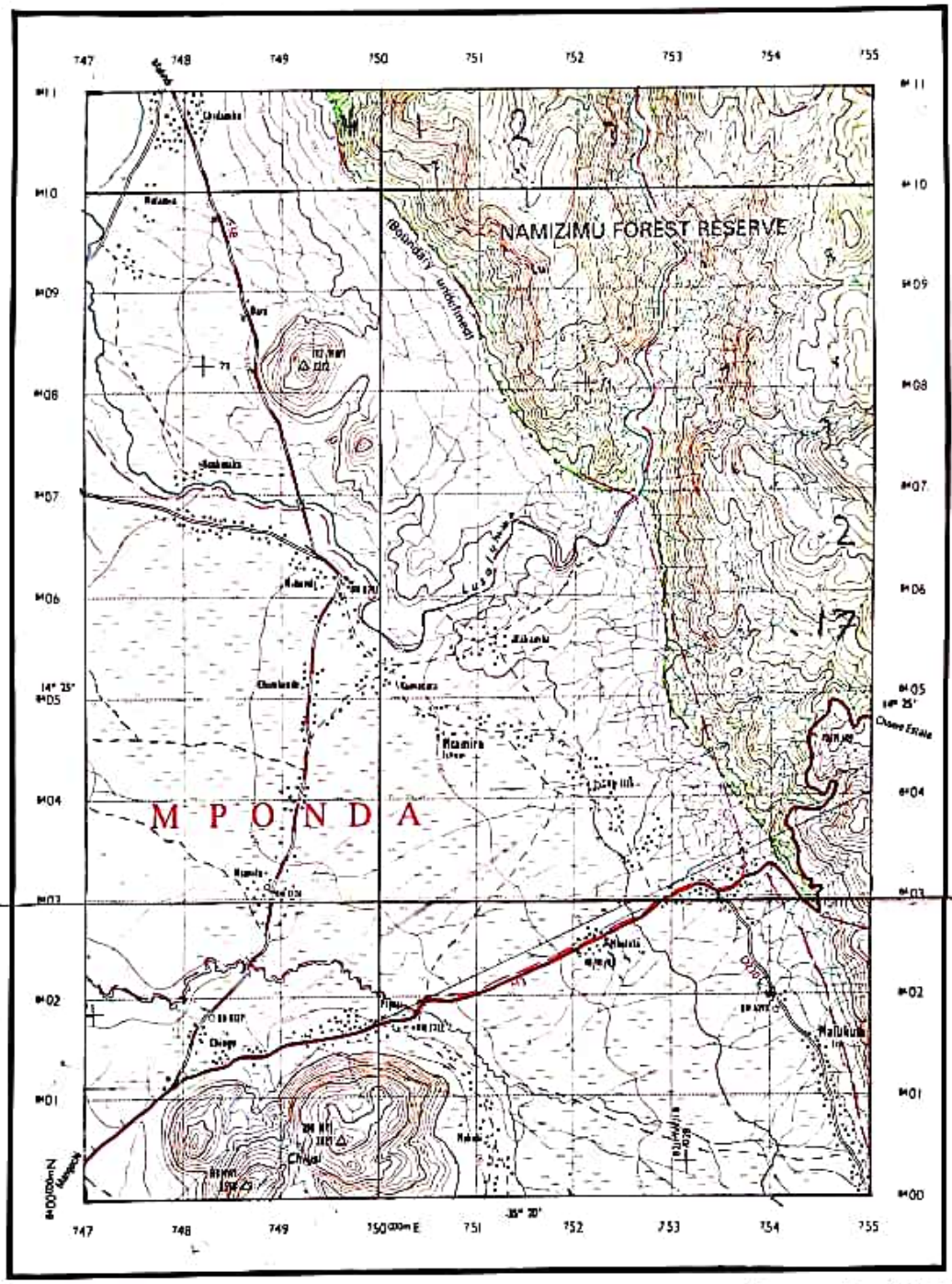
SCALE 1:50 000

Metres 1000 500 0 1 2 3 4 Kilometres

Town or village with permanent buildings
Compounds
Huts, Villages
Main Road (with number)
Secondary Road
District and Other Road
Bridge, Culvert
Track
Aerodrome, Landing Area
Post Office, Telegraph Agency
Radio Telephone Mast
Game Reserve, Forest Reserve, Controlled Area
Trigonometrical Station
Spot Height in Feet
Forest
Light Forest
Scrub
Marsh
General Cultivation
Watercourse, Waterfall, Rapids
Watercourse (Wide), Waterfall, Rapids
Watercourse, disappearing, subterranean
Contours (Vol 50ft)
Well, Spring, Borehole

Grid North
True North
Magnetic North
7° 29'
7° 02'
27'
At Sheet Centre
Magnetic Variation as at January 1979
Annual Change 11E East


NAMIZIMU FOREST RESERVE
Boundary undefined
M P O N D A
Mponda
Chimbalanga
Chimbale
Chiwaya
Mwamira
Mpalakasi
Mpalakasi Mission
Chiwaya
Mpalakasi
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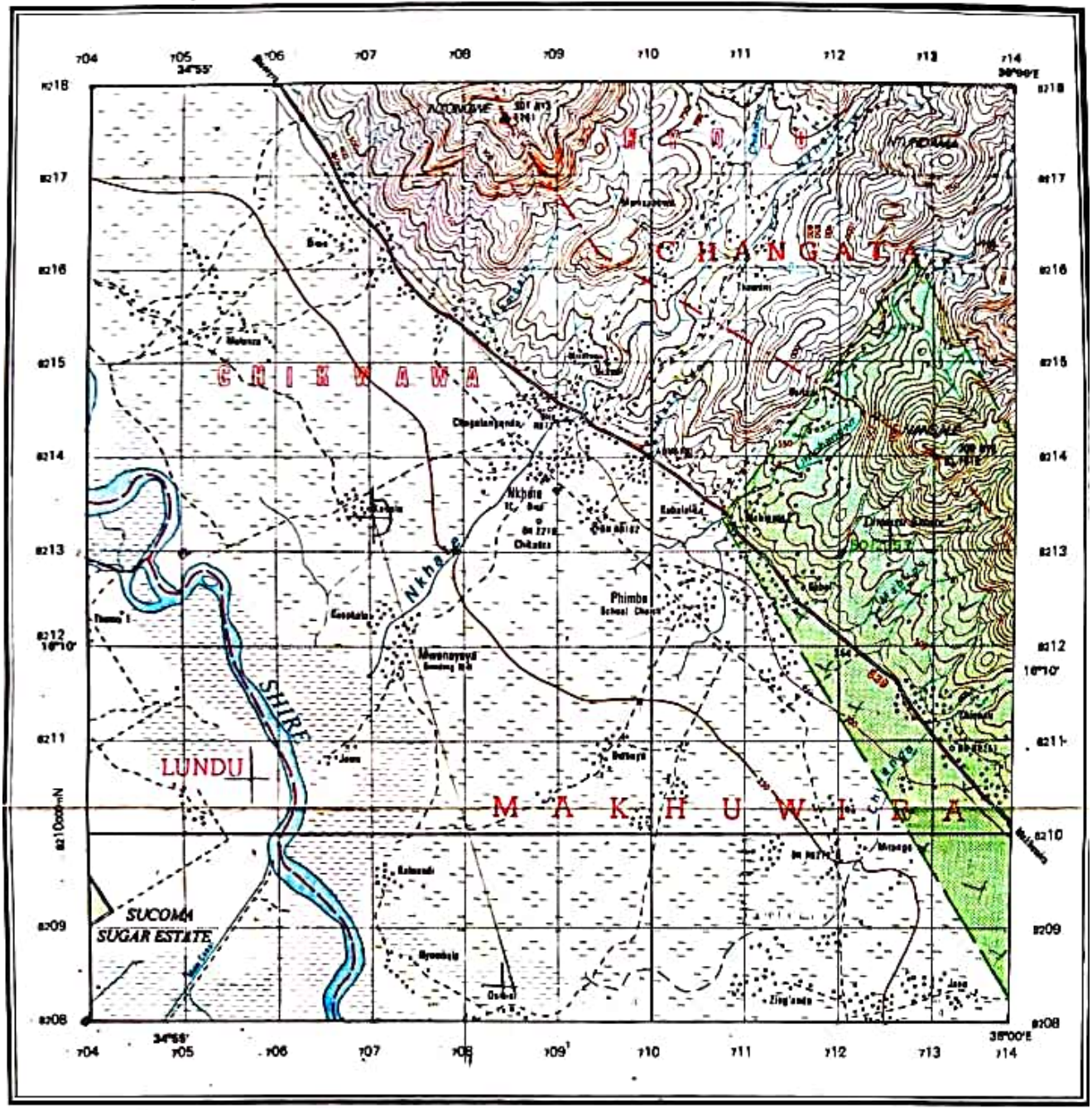
Mpalakasi
Mpalakasi

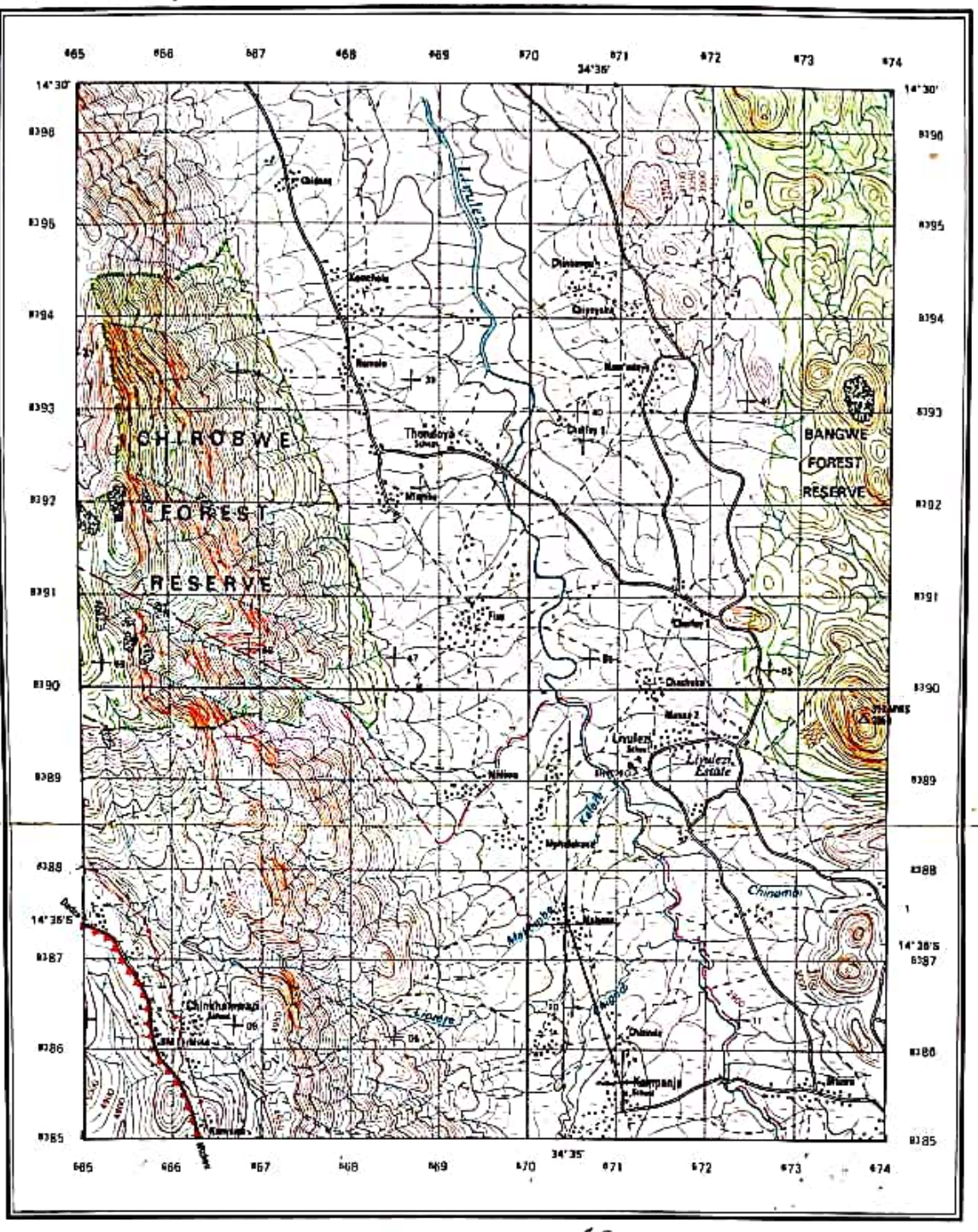
MALAWI 1 : 50,000

NKHATE


CHIKWAWA
CHANGATA
LUNDU
MAKHUWIRA
SHIRE
Nkhate
Phimbi
SUCOMA
SUGAR ESTATE
Nkhate H. Qtrs
Chikalesi
Mwanunyayi
Bolero
Mwanga
Ziyalanda
Jana
Jamu
Bethuya
Kabwanda
Nyambuya
Thawani
Mwanza
Chipalanjanda
Kasalala
Thimbi
Kasalala
Mwanga
Nkhate
Chikalesi
Phimbi
Mwanunyayi
Bolero
Ziyalanda
Jana
Jamu
Bethuya
Kabwanda
Nyambuya
Mwanga

MALAWI 1 : 50,000

CHIROBWE



SCALE 1:50 000

Metres 1000 500 0 1 2 3 4 5 Kilometres

687929

Town or areas with permanent buildings

Other populated areas

Compounds

Huts, Villages

Roads:- Main

Secondary

District and other

International

Glare Reserve Forest Reserve Controlled Area

Well, Spring, Borehole, Reservoir

Forest

Light Forest

General Cultivation

Estate and Plantations

Contours

Grid North

True North

Magnetic North

7°49'

7°24'

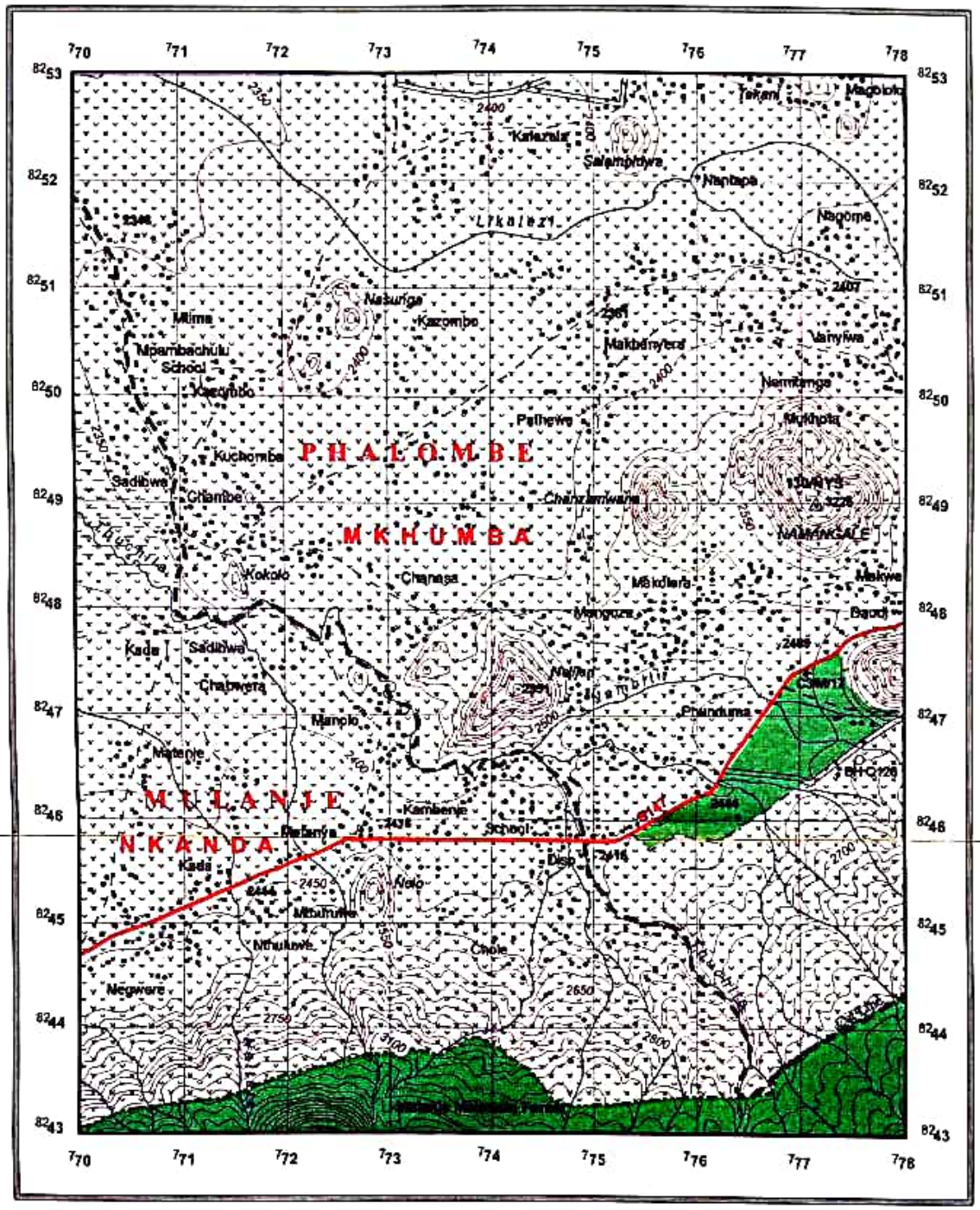
25'

At Sheet Centre
Magnetic Variation as at January 1970
Annual Change 1° East

MALAWI 1:50 000

M U L A N J E

EXTRACT OF SHEET 1535 D3



SCALE 1:50 000

0 0.5 1 2 3 4 Kilometres

N W E S

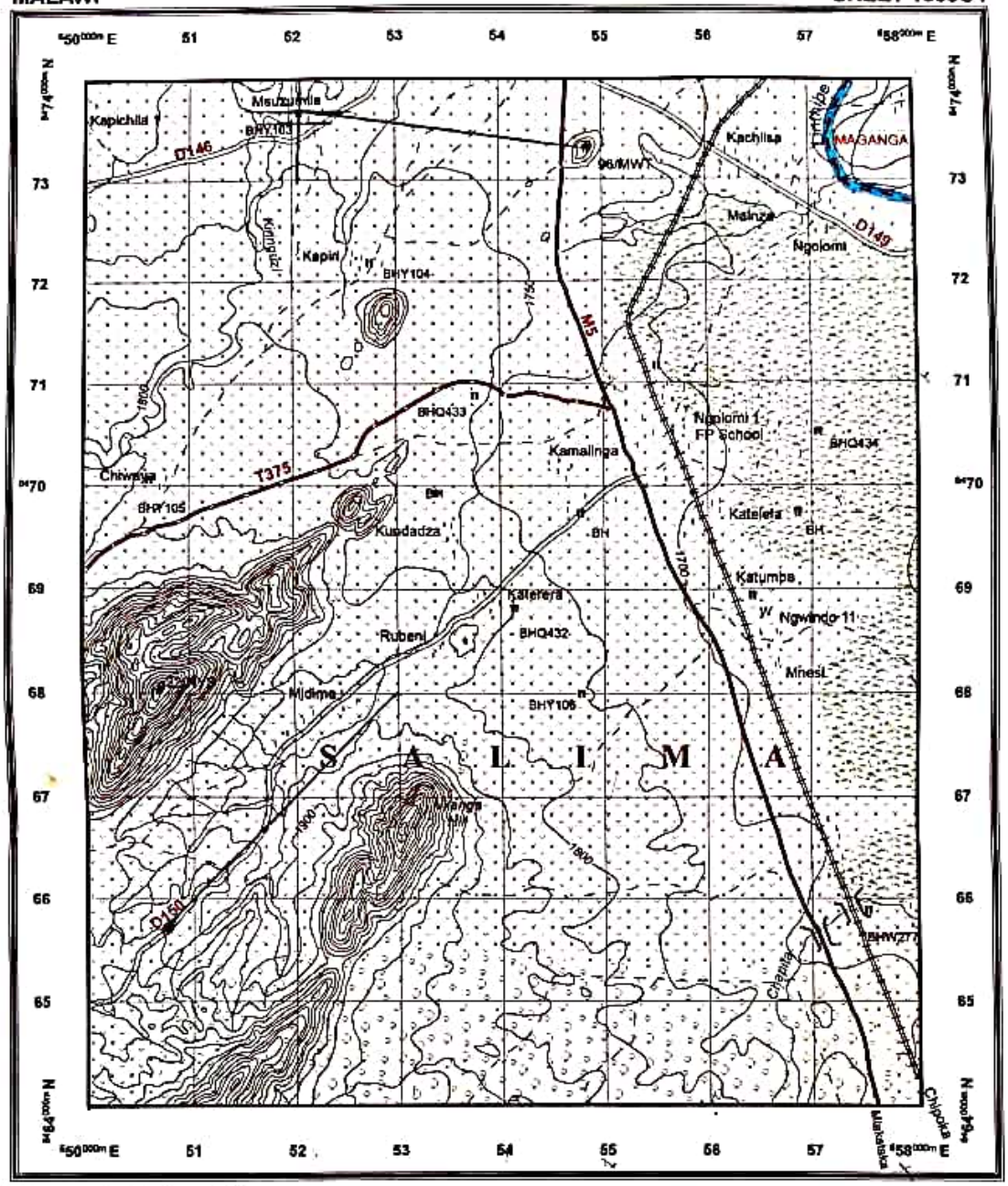
Key

Villages	District Boundary	Main Road	Estates and Plantations
Trigonometrical Station	Traditional Authority Boundary	Secondary Road	Seasonal Marsh or Dambo
Spot Height in Feet	Rivers	District Road	Forest Reserve Controlled Area
Boreholes	Contours (V.I. 50m)	Other Roads	General Cultivation

SALIMA

MALAWI

SHEET 1333C4



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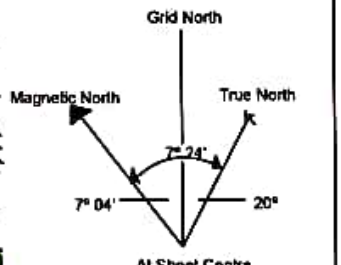
SCALE 1:50,000

Metres 1 0.5 0 1 2 3 4 5 6 7 Kilometers

Legend

- Town or areas with permanent buildings
- Other Populated Areas
- Compounds
- Villages, Huts
- Permanent Building (annotated)
- Well, Spring, Borehole (PO)
- Trigonometric Station (#)
- TA Boundary
- Secondary Road
- District Road
- Main Road
- Railway
- District Boundary
- International
- Track
- Bridge, Culvert
- Rivers
- Contours (2050, 2000, 1950)
- Power Line
- Grasslands
- Game Reserve Forest Reserve Controlled Area
- Rainfed Cultivation
- Wetland Cultivation
- Woodlands



At Sheet Centre
Magnetic Variation as at January 1970
Annual Change 1/2' E